The A

JU

The Accounting Review

VOL. XIII JUNE, 1938 No. 2

HIGHER EDUCATION FOR PUBLIC ACCOUNTANTS

NORMAN E. WEBSTER

I HAVE been asked for a short account of four matters, viz., reasons for the change nearly nine years ago in the New York law; standards for judging the suitability of a school's offerings; and collegiate education as the basis for admission to CPA examinations from the points of view of the examiner and of the professional accountant.

Before discussing these problems it may be well to remind you that New York State does not have a board of accountancy such as has been created in most other states. The control of certified public accountancy in New York is lodged in The University of the State of New York, which is not an educational institution but is an administrative body. At its head are the Regents of the University, now twelve in number, who serve without compensation, and one of whom is elected each year by joint ballot of the two Houses of the Legislature.

Responsibility and authority for the administration of the CPA Law in New York rest with the Regents, but for the execution of the policies which they adopt, the Education Law provides four agencies, namely: the Education Department which, as to accountancy, acts principally through the Assistant Commissioner for Higher Education and the divisions of professional education and higher education; the Council on Accountancy, an advisory body of five eminent certified public accountants, who serve without compensation; the Grievance Committee, consisting of ten certified public accountants, each having held the certificate for at least ten years before his appointment, who also serve without compensation and who have jurisdiction to hear charges against a certified public accountant for fraud, deceit or gross negligence, keeping a stenographic record of the proceedings and transmitting such record with a report of the Committee's findings and recommendations to the Regents for their order of affirmation, modification or reversal; and the Board of Certified Public Accountant Examiners consisting of five members who at the time of their appointment shall have been engaged in public practice for at least five years, which passes upon the experience qualifications of all applicants for examination, for certificate after passing the examination, for indorsement of the certificate issued by another state, and for registration of a copartnership, and which prepares the examination questions in commercial law, theory of accounts, practical accounting and auditing, and rates the answers thereto.

To those who are not accustomed to such a distribution of responsibilities, this scheme of organization may seem to be cumbersome and unwieldy, and they may suppose that it results in delayed action upon important matters. Experience with it, however, indicates that it is able to operate with reasonable celerity and that

such delays as do result from it are probably more than compensated for by the successive consideration which is given to any new proposal before it is made effective or abandoned.

In the preparation of this paper, the writer has consulted with his fellow members of the Board of Certified Public Accountant Examiners as to matters which come within its province, and with the Education Department as to some of the other matters which your program committee asked to have discussed at this time.

Numerous changes in the New York CPA Law were made in 1929 and a few in 1930 and 1932. It appears, however, that the one which your program committee wished to have discussed at this time was that which now is Section 1498-a of the Education Law and which requires that "Subsequent to January first, nineteen hundred and thirty eight, every candidate for examination for a certificate as a certified public accountant shall present evidence that he has satisfactorily completed the course of study in a college or school of accountancy registered by the department as maintaining a satisfactory standard, and that prior to the beginning of his course of study in such college or school of accountancy he satisfactorily completed a four year high school course approved for this purpose or the equivalent as determined by the commissioner of education."

In taking up the preparation of this paper the writer, though not himself informed as to the history of and reasons for this change in the New York Law, thought that no doubt it was in print and readily available. To his surprise that was not the fact. However the following story of this legislation has been compiled from various publications and after consultation with many accountants and others.

Naturally the New York State Society of Certified Public Accountants has always been interested in protecting and improving the New York CPA Law. In its 1927 Year Book, President Joseph J. Klein said in his report in the discussion of the subject of legislation "I therefore propose to appoint, in the near future, a representative committee to make a comprehensive and impartial survey of the entire field." In his next annual report as shown in the 1928 Year Book, his recommendation for the creation of that committee had been approved and he had appointed nine members who on July 6, 1927, organized by the election of Mr. Henry B. Fernald as chairman.

This Legislative Survey Committee submitted a preliminary report to the Society at its annual All-Day Meeting on October 25, 1927, and on January 14, 1928 it presented its final report which concluded with six recommendations. These, however, did not refer to the educational qualifications of applicants for examination. This report was approved by the Board of Directors on January 16, 1928 and printed and distributed to the members of the Society, and on January 30, 1928 "the Society went on record as favoring amendments to the Certified Public Accountant Law along the lines recommended by the Survey Committee."

The 1929 Year Book in the report of President Patrick W. R. Glover shows that the standing Legislation Committee, of which Mr. Alexander F. Makay was chairman, drafted a bill upon the basis of the recommendations of the Legislative Survey Committee which with suggestions offered by Dr. James Sullivan, Assistant Commissioner for Higher and Professional Education was discussed by the Society at its meetings in October and November 1928 and approved at the December meeting for introduction at the opening of the Legislature in January. It appears that the bill as thus prepared was wholly or

largely devoted to matters as to the organization of the Council, Grievance Committee, and Board of CPA Examiners, and as to defining their duties and powers, but that it did not then contain the provision which now is Section 1498-a. The then chairman of the Legislation Committee, Mr. Makay, wrote recently that his files show that this provision was proposed by Dr. Sullivan at a conference with the Society's counsel on January 20, 1929.

The progress of the Society's bill in the Legislature both before and after it included Section 1498-a, was as follows: January 22, 1929 the bill approved by the Society on December 10, 1928 was introduced by Senator H. D. Williams and by Assemblyman F. M. Smith; January 31, 1929 an amendment was introduced which provided generally for educational qualifications along the lines now in the law;

February 11, 1929 the Society discussed and approved the amendment;

February 20, 1929 an amendment was offered containing Section 1498-a;

March 22, 1929 the Senate unanimously passed the bill as thus amended;

March 26, 1929 the Assembly concurred with only two negative votes; and

April 3, 1929 the Act was approved by Governor Roosevelt.

So much for the history of the provision for a college education as a requirement for examination after January 1, 1938. Apparently it was not originated by the State Society, which accepted and approved it upon the recommendation of Dr. Sullivan whose first suggestion was that it should become effective after January 1, 1935. Unfortunately his reasons for proposing it have not been reported and his death about two years later makes it now impossible to learn whether his recommendation was based upon some particular conditions or only, as recently suggested by one associated with him in 1929, "that certified public accountancy was growing up as a profession and that it was due to its status as a profession that it should, like medicine and dentistry and other professions, be based upon college and university training." The only currently reported reasons for the adoption of the educational provision was that in the annual report of the President of the State Society as stated in the 1929 Year Book that it was "with the view of putting the profession upon a sound educational basis in the future," while in the Education Department Report for the school year ending July 31, 1929, Dr. Sullivan said, "one excellent provision in the law is that it makes it necessary for all certified public accountants to be graduates of professional schools after 1938. Here as in architecture, the practice is put on a truly professional plane.

Before leaving this subject the writer will express his purely individual opinion that it was unfortunate that this provision did not receive as critical attention in 1929 as did the other changes then made. Probably the fact that its operation was nine years in the future may have suggested that there was ample time to prepare for it. But now that the date is almost upon us, its significance looms much larger and the writer cannot but feel that instead of covering four years in one leap on next New Year's, it would have been wiser to have made the distance in three or four steps at intervals of a few years, and thus to have made haste a little more slowly as have the older professions.

Taking up the second subject, the standards that have been set for judging the suitability under the law of a school's offerings, this is a matter wholly within the province of the Education Department. The regulations of the Commissioner of Education applicable thereto as set out on page 23 of the January 1936 issue of Handbook 40 are as follows:

Sec. 13. Registration of a college or school of accountancy.

a. A college or school of accountancy shall have adequate equipment and resources, including suitable facilities for practical instruction, and shall maintain an adequate professional library.

b. It shall provide a sufficient number of full-time salaried instructors with satisfactory professional training.

c. It shall maintain a satisfactory course of four years. Each year shall be at least eight months in duration. Such course shall not be acceptable for experience credit unless it shall include a satisfactory major in accountancy and allied subjects.

d. It shall require for admission the satisfactory completion of an approved four-year secondary school course of study, or the equivalent.

For use in the preparation of this paper the Department has stated that since this Regulation was enacted it has been found necessary to be a little more specific and the next issue of the handbook will contain a statement that the record of a graduate of one of these colleges to be acceptable must include at least 24 hours of accounting, 8 hours each of business law and finance and 6 hours of economics, if the applicant is to be given credit for accountancy experience. The course of study in each of the registered institutions is approximately 50% liberal arts and science, and a graduate will have completed a well rounded course of study, as well as have specialized in accounting and allied subjects.

As it is not possible for the Department to make its own inspection of the institutions which apply for registration, it utilizes the regional accrediting associations which do thoroughly inspect the institutions in the region which each association covers. The Department does not register a college or school of accountancy that is not fully approved and in good standing with its regional accrediting agency. It has been very careful with its list of registered institutions and feels that it represents a select list.

The writer understands that the Department has not proposed to prescribe a curriculum but has left each institution free in that respect subject only to the required proportion and quantity of liberal arts and technical subjects. The only approach to the matter of a curriculum is that on February 22, 1935, the Regents upon the recommendation of the Department approved a Syllabus for Candidates Taking the Certified Public Accountant Examination. As stated therein the last prior syllabus was issued in 1911, and the new issue was "prepared for the purpose of standardizing the work of the State Education Department and the Board of Certified Public Accountant Examiners; and of furnishing information to prospective applicants for examination and to institutions offering instruction in accountancy." Though published in 1935 its preparation had been begun by the Board some three years earlier, when several years must elapse before Section 1498-a would become effective at January 1, 1938. It was therefore designed primarily for the then existing conditions, although as far as possible consideration was given to the requirements of the amendment adopted in 1929. In the opinion of the writer and probably of the Board a new edition should be prepared after the colleges and the Board have had some experience with the new requirement effective in 1938.

Turning away from the history of the educational requirement, and the registration standards set up in its administration, your committee requested a discussion of collegiate education as the basis for admission to the CPA examina-

tions from the point of view of an examiner.

Before taking up a consideration of this matter as affecting the future, it should be instructive to review the experience of the past. Up to now the educational requirement for admission to CPA examinations has been high school graduation or its equivalent, and in New York even this was waived for those who had been in public practice ten years prior to 1930. However during many years a minority of the applicants have been graduates of schools of accountancy, and in New York, which generally has required at least three years experience in bookkeeping from all applicants for examination, this accounting education has been accepted since 1934 as the equivalent of two years and previously of all such bookkeeping experience.

The accepted applicants for examination thus have embraced accountancy school graduates with one year bookkeeping experience; high school graduates or equivalents with three years bookkeeping experience; non-graduates of high schools with ten years public practice prior to 1930; and almost every possible degree of preparation within these limits. Obviously examinations had to be set up for what appeared to be the mean of these varied forms and degrees of preparation, rather than questions adapted to those with experience or those who were graduates in accounting.

Quite possibly the examination results differed from what they might have been if all candidates had been college trained and if the questions had been prepared for only such candidates. During 1929 to 1934 the examination results were as follows:

Type of Candidate	Total Candidates	Subjects Passed Successfully: All	Three	Two	One	None
College graduates	604	4%	14%	12%	26%	44%
Non-graduates	6,767	4%	14%	12%	28%	42%

For the same period the results of those taking only one subject was as follows:

Type of Candidate	Total Candidates	Subjects Passed Successfully: Theory	Practical	Auditing	Law
College graduates	131	100%	24%	40%	40%
Non-graduates	3,599	55%	22%	40%	75%

While these results may indicate that the examiners had succeeded in setting examinations which did not give a preference to either type of candidates they also suggest either that the examiners were too severe in preparing questions and in rating answers or that far too large a proportion of the candidates had entered the examinations without adequate preparation. And you will have noted that because of the very striking uniformity in the percentages for the two types of candidates, the lack of preparation if that was the cause existed in the case of the college graduates as well as in the case of the others.

Now in discussing the reasons for these results, the writer cannot speak for the composite of all examiners or even for any one beside himself except possibly for those with whom he has had the privilege and pleasure of serving on the New York Board. For this reason he will indicate that he is speaking for himself alone by using the first person singular.

My experience in examining applications for examination and in rating answer papers has convinced me that in far too large a proportion of the cases of failure the primary cause is the inadequacy of the candidate's secondary or high school education and that quite often the superstructure of a college course upon that weak foundation has made a bad situation worse. Bad English, not alone in rhetoric but in grammar and spelling and in the unwise selection of big words; failure to recognize that a question in costs was merely a problem in practical arithmetic;

superficiality; muddled thinking; those were the causes of a very large proportion of the failures.

May we expect that the educational requirement effective after next New Year's will overcome this situation? In my opinion not for a considerable period, several years, perhaps a decade, though I do hope for improvement within that time.

In New York applicants approved for examination under the law and regulations effective to December 31, 1937 may have three years, six opportunities, to pass the examinations. During that time however new candidates will be appearing at the examination who have qualified under Section 1498-a. Accordingly for that period of three years the examinations must still be prepared with consideration of the fact that the candidates will yet embrace college graduates and others, the former probably in increasing numbers, the latter surely growing less.

Before the first examination in which candidates under the new law will appear, the 85th on April 26-28, 1938, it is proposed that a statistical plan be devised which as continued for the subsequent examinations may, and it is hoped will, show the effectiveness of the college training.

And at some time after January 1, 1941, I hope that the plan of examinations will be changed by providing for two tests at different times. I believe the preliminary examination should be open to all students immediately upon graduation and might cover business law, theory of accounts, theory of auditing, and such other text book subjects as may be taught in the schoools and considered to be appropriate for the CPA candidates. Later those who will have passed this first test and have had not less than two years with certified public accountants in public practice may be admitted to the final examinations which in the main should be practical with perhaps a textual discussion of business law and accounting theory in relation to some state of facts.

And finally, collegiate education as the basis for admission to the CPA examination from the point of view of the professional accountant. For this fortunately it is not so difficult to ascertain the answer. Several well considered articles on this matter have appeared in accounting magazines, but the broadest and most comprehensive study of this question was that completed this year by the Committee on Education of the New York State Society of Certified Public Accountants and issued as its Report on May 3, 1937. I venture to suggest that you would find this report interesting and suggestive even though of course the study was limited to members of the Society in New York State. I am told that the report is still in stock and will be supplied upon request.

It was based upon a questionnaire sent to a selected list of employers of staff accountants, including partners in large firms, partners in small firms and individual practitioners, a majority naturally in New York City but several located elsewhere in the State. The questionnaire asked for answers to about sixty questions, categorically when practicable, but in longer statements where those answering could thereby more clearly state their requirements or preferences. Twenty-four replies were received and these were analyzed and summarized in the Committee's thirty-one page report.

At this time we can consider only a few of the answers. With but few exceptions preference is given to college graduates, and this is true even when such applicants are without accounting experience. Also with but few exceptions particular consideration is given to the grades which the applicants made in school on general

subjects, and as to special subjects similar consideration is given by the majority, though not quite so strongly as on the general subjects. It is clear that the professional accountants prefer college trained assistants.

From what I have said you will understand that I value this report. I have the good fortune to know all of the eleven members of the Education Committee and had some general knowledge of the amount of time which they gave to the preparation of the questionnaire and to the study of the answers. And of course in my estimation its value is not lessened by the fact that to the extent of a little over four per cent the concensus of the opinions is based upon answers prepared in the office of my firm.

But as our influence upon the summarized results was such a minor one, I believe I am free to express some purely personal opinions to which I hold even though at present they may not be accepted by any large proportion of professional accountants.

I look for the time when collegiate study of accountancy will be post-graduate work. As you know Harvard University and Columbia University have made it so in their graduate schools, while Dartmouth College many years ago approached this standard when in the establishment of the Amos Tuck School it provided that graduation from the latter should be after a total of five years of study. Of course post-graduate work implies that the student has completed his undergraduate work, even as graduation from our present schools of accountancy implies that such graduates had previously completed high school, which however in too many instances examiners find it difficult to believe.

I disclaim any qualifications for the preparation of a curriculum because I have had very little experience as a teacher and far too little experience as a student. However I venture to hope that the post-graduate or professional schools of accountancy will come to compare favorably with the best of such schools in law and medicine, and send out graduates who have specialized in our line, based upon a sound foundation of liberal arts study.

But the sound foundation brings us back to the undergraduate work, the collegiate education which here we are considering. In the Education Department's standards for registration and in the schools curricula conforming thereto provision has been made that the courses should be devoted approximately one-half to professional studies in the field of accountancy and one-half to liberal arts and science. You will appreciate how old-fashioned I am when I tell you that I prefer to classify the latter group as cultural studies. However fashions change and I am informed that the older term is coming into vogue again and also that utilitarianism is not the watchword in educational circles that it was for a time.

If true this pleases me because if I were to advise as to the division of studies in preparation for accountancy, I should propose not to exceed one-quarter in technical studies, and those basic rather than specialized, while I should regret that this would leave only three-quarters of the course for cultural subjects. Right now if selecting assistants with a view to their remaining with us for years I would be inclined to prefer an applicant with a B.A. to one with a B.S. in Com., but unfortunately very few who wish to enter public accountancy have taken arts or science courses.

Perhaps I am mistaken in holding to this preference. I fear that you will think I am. But such beginners realize that they have yet to learn their accounting, both theory and practice, while too often the graduates in accountancy believe that

they are qualified to be seniors or principals. The cultural courses, languages, mathematics, philosophy and sciences train the student to think and perhaps the most needed and rarest ability in the juniors of today is "to think without confusion, clearly."

AVERAGE INCOME AND ITS USE IN TAXATION

MARTIN ATLAS

SINCE the beginning of income-tax legislation in the United States, the concept of the annual accounting period has been accepted *per se* in the calculation of the income tax. But before entering into a fuller discussion of the concept of the annual accounting period, we may well digress momentarily to inquire into the government's aim in levying the tax. Is it to receive as great a yield as possible, or is it to burden each taxpayer equitably according to his ability to pay? If the former is the aim, then the government must be condemned because a much more successful and complete shakedown of the taxpayer is possible; but if the latter is the aim (and it is the writer's view that such is the case), then the government must be condemned because of the gross inequities that arise from the use of an annual accounting period.

Significant to observe is that the use of the annual accounting period does not cause only the taxpayer to be the loser. For the use of such an arbitrary period is equally the cause of diminution in the size of the receipts to the State. Illustrations of both classes of inequities will now be presented.

A lawyer, for example, is engaged in the settlement of an estate. The task takes five years, at the end of which he receives a fee of $25,000. Allowing for a deduction of $2,500 in the fifth year, he has a taxable income, for that year, of $22,500. This income is subject not only to the normal tax, but also to the surtax. A second man, however, has an *annual* income of $5,000. He too is entitled to a deduction of $2,500, leaving a net taxable income each year of $2,500, which is subject to a much lower rate of tax. For the same five-year period the second man's tax amounts to five times the tax on $2,500, or a total of $500, while the first man is subject to tax on $22,500, amounting to $1,945. Thus the second man saves in two ways. First, his total taxable income, because of the deductions covering the five-year period, is only $12,500; second, this $12,500 is taxed at the rate levied on annual incomes of $2,500, which is lower than the tax on annual incomes of $22,500. The injustice done to the lawyer in the first case is manifest. His income is no larger than the second man's, but his tax is almost four times as great.

An example may be cited of inequity to the government. An individual has considerable bondholdings that during the course of the year have appreciated greatly in value. During the same year he has also had a sizeable ordinary income, but faces the prospect of receiving no income during the coming year. Towards the end of the year he considers selling these bonds. To do this, however, would mean an increase in income that would boost him into the high surtax brackets, thus destroying perhaps most of his gains. Under our present system such an unwelcome eventuality may be avoided by simply deferring the sale until after the close of the current taxable year, thereby

crediting the gain to the following year. This gain then becomes subject to a much lower rate, as does the income of the current year, due to the fact that the taxable income is a smaller one than it should be. Such practice may not seem to be a widespread one, but a moment's reflection will show that if the deferment will save any amount of tax, the taxpayer will probably defer selling until a later date. Obviously this results not only in an irregularity in tax receipts, but a possibility of a block in the normal flow of trade, which would take place if nothing could be saved by deferment of the transaction.

It might be said at this point that, since the government comes out ahead on some transactions and behind on others, things probably work out without much gain or loss, and that to do anything about it would only succeed in making administration more complicated and more costly. It cannot be denied that change might give rise to certain administrative difficulties, but to this writer that does not seem to be sufficient or adequate reason for sanctioning existing inequities. Behind this, however, there lies a far more basic problem that must receive attention, namely, the question of whether income is a concept that is basically annual or whether it is essentially a long-term concept. In answer, the thesis is advanced that income is necessarily a long-term concept and that to deal with it on any but a long-period plane is inadequate, causing gross inequities to both taxpayer and government.

To delay any longer the definition of terms is likely to lead to undue confusion. Therefore, it should be here stated that the term "income" is used as defined by R. M. Haig, and means the accretion to one's economic position between two points of time. Just what is meant, however, by the phrase, "between two points of time"? Can it rightly be said that if the period of time taken as the base is the year, the income of one year is separate from, and with no effect on, incomes of both past and coming years? Or is it not more logical and equitable to say that income is a *continuum*, the years serving the purpose of reference marks rather than barriers? It is like saying that the milestones along a road mark off entities that have nothing to do with the road as a whole, the distance between the first and second milestones being considered without reference to the distance between and beyond the second and third milestones, and both distances disregarding the road as a whole. The more logical basis for consideration would be the road as a whole, with the milestones serving for the sake of convenience as reference marks that facilitate the observation of sections at a time. Similarly, an adequate treatment of income must treat income as an entity in the long run, the annual periods being used for convenience of calculation but by no means neglecting the effect of a current year's income on the income of both the years that have passed and those that are yet to come.

Several tax programs have recognized the long-period nature of income. An examination of these now follows.

AVERAGE INCOME IN ENGLISH TAXATION

From the early days of income taxation in England computation of the profits of a trader assessable under Schedule D has been based on the average profits of the three years preceding the year of assessment. For the first year of the tax, 1799, the trader had the option of selecting either the average profits of the three preceding years or the profits of the preceding year—no doubt to avoid the hardship of bringing into the clutches of the new tax abnormal profits made prior to the year for which the tax was levied. But when

once he had made his election, he had to abide by it for later years as well as the first. This basis and option applied not only to trades but also to professions, offices, and employments that produced uncertain amounts of income.[1] In cases where the income was certain, however the basis was to be the income of the preceding year.[2] Mines and fire insurance offices were assessable on a five-year average.[3]

In 1803, when incomes were first classified under the still existing classification, A, B, C, D, and E, trades and manufactures were assessed on a three-year average without option, but professions and employments in Schedule D were assessed on the basis of the preceding year. Mines remained on a five-year average.[4]

When the income tax was reimposed in 1842, the averaging method under Schedule D was retained. To objections against assessments on averages raised when the bill was in committee, the Chancellor replied: "Persons in whose trades depressions existed during the last year, and who hoped for improvement in the future, were desirous to have assessment on last year's profits; and those who thought the depression had existed in their business the last three years." He considered the fairest course was to adhere to former practice and to estimate the profits of the current year on the average of the three preceding years.[5] Traders and manufacturers continued, therefore, to be assessable on the average profits of the three preceding years, and professions and employments on the previous year, subject, however, in both classes to a provision for adjustment in case the profits of the year of assessment fell short of the profits as assessed. This provision was contained in Section 133 of the Act.[6]

This section was so one-sided in favor of the taxpayer that in 1865 it was amended to require the taxpayer to prove not only that his profits for the year were less than the amounts of profits assessed, but that they were less than the three-year average including the year of assessment. It also limited the amount of relief to the difference between the current-year profits and an average based on the profits of the year of assessment and the two preceding years.[7]

Evidence before the Select Committee of 1861 showed little opposition to the averaging method but made conspicuous the one-sidedness of Section 133, which enabled the taxpayer to get his assessment reduced if he made less than the average, but did not enable the Commissioner to increase the taxpayer's assessment if the latter made more than the average. Although a useful and perhaps necessary provision of the tax in its early years, this section was unequal and capricious in its operation, both as between the Crown and the taxpayers, and as between two taxpayers of whom one has a constant income and the other a fluctuating income. Mr. Hubbard, in his report, recommended repeal of this section, but the Committee made no recommendation on this point.[8] The prominence given in 1861 to Section 133 may, however, have been the cause of the modification made in 1865.[9]

The Commissioners of Inland Revenue in their Thirteenth Report, dated 1870, commenting on the injustice of Section 133 and on the fact that the 1865 Act merely palliated and did not completely correct the injustice, were led to the conclusion that the mischief was inherent in the averaging method and said, "We doubt

[1] 39 George III, 3. 13, sec. 79
[2] 39 George III, c. 22, Schedule A, 15th case.
[3] 39 George III, c. 22, Schedule A, 10th case.
[4] 43 George III, c. 122, sec. 84.
[5] Hansard, Vol. 63, 3rd Series, col. 236.
[6] 5 and 6 Vict., c. 35, sec. 133.
[7] 28 and 29 Vict., c. 30, sec. 6.
[8] Select Committee, 1861, 1, p. xvi.
[9] *Infra.*, note 7.

whether any rule of change could be devised for such cases which would do justice both to the taxpayer and the Revenue so long as the system of averaging is preserved. It would be a great improvement if we could charge the actual profits made in the year ending on the 31st December immediately preceding collection."[10]

In 1893 Mr. Gibson Bowles made the proposal that profits be computed neither on a three-year average nor on the profits of the previous year but on the profits of the year of assessment itself, maintaining that on this basis the income tax would exactly "follow the fortunes of the income."[11] In 1902 he again argued that the average was an abstraction that represented nothing absolutely true, and asked for a device whereby the tax would be levied on the actual profits of the year of assessment; but his proposal was not accepted.[12]

Both Section 133 of the Act of 1842 and the corresponding section of the Act of 1865 were recommended for repeal by the Departmental Committee on Income Tax in 1905.[13] The entire question of the averaging system was considered, and it was decided that despite the inequity which arises through assessment being larger than income for some years, the system had given rise to little complaint during its sixty-year existence, and change would bring with it temporary confusion, distress, and unpopularity, and that unless definite public opinion pointed to the contrary, the averaging system was to be maintained.

Under the Finance Act of 1907[14] the recommendations above were enacted, the two above-mentioned sections being repealed and provision being made that when anyone who is charged on a three-year average proves that his actual profits fall short of the profits as computed according to that system, he shall be entitled to be charged on the basis of his actual profits.[15]

In 1914, after the outbreak of the World War, Section 133 was temporarily revived for the specific purpose of dealing with cases where profits had fallen short of assessed profits owing to circumstances attributable to the war.

After the war, a commission was appointed to investigate all phases of the income tax. Its recommendations[16] were that the basis of assessment should be the preceding year's profits, due to the facts that (a) it would make the amount of profits assessed correspond much more closely with the taxpayer's current tax-paying ability; (b) it would be a step toward uniformity and simplicity; and (c) it was universally desired. The commission also recommended that the then existing provision by which repayment of tax was granted in cases of loss should continue and that any balance of loss not so dealt with should be permitted to be carried forward for a period of six years. This program was subsequently adopted, and the British income tax is at present based on annual income with a carry-forward provision for losses.

AVERAGE INCOME IN AMERICAN TAXATION

American experience with the averaging of income is centered on its use in Wisconsin. The three-year method of income-tax assessment was adopted by the state legislature in 1927.[17] Under the provisions of that law, as amended, assessments for

---

[10] Report, Commissioners of Inland Revenue, 1870, p. 128.

[11] Official Report, Vol. 12, 4th Series, cols. 166–167.

[12] Official Report, Vol. 106, 4th Series, col. 836.

[13] Report of the Departmental Committee on Income Tax, London, 1905.

[14] 7 Edw. VII, c. 13, pt. v, secs. 18–28.

[15] *Ibid.*, sec. 24.

[16] Report of the Royal Commission on the Income Tax, 1920, sec. 7; par. 479–485.

[17] Laws of Regular Session, c. 539; Report of Wisconsin Tax Commission, 1934, pp. 111–112.

the year 1928 were based on the average of income or losses for the two years 1926 and 1927, giving two-thirds weight to the former and one-third to the latter. Taxable incomes assessed in 1929, 1930, 1931, and 1932, however, were based on an average of the net income or losses of the preceding three years in each case. Income taxes for 1933 were levied on alternative bases, being based either on the net taxable income of 1932 or on an average of 1930 and 1931 (giving one-third weight to the former and two-thirds to the latter), whichever was larger.

Aside from administrative difficulties, legal difficulties also barred the way for the averaging system in Wisconsin, the most serious being the case of *Fitch v. Wisconsin Tax Commission*,[18] wherein the court limited the application of the average in determining taxable income in certain cases. The court held that after the closing of a decedent's estate only one current assessment, based on the average income of the last three years of the estate, could be levied. This decision had the effect of exempting two-thirds of the last year's income of the estate and one-third of the income of the year preceding. For the assessor of incomes had assessed such untaxed income by using each year's income until it had been used three times in determining the average taxable income. But in order to average out these taxable incomes, the assessor used zero as the income of each of the two years following the close of the estate. In effect then, he had entered three assessments against the estate after it was closed, the first based on one-third of the total income for the last three years preceding the closing of the estate, the second, on one-third of the income of the two years preceding the closing of the estate, and the third, on one-third of the income of the last year of the estate. The court held that only the first of these three assessments could be made. The court reasoned that: (a) No tax could be levied on a dead man inasmuch as no benefit was derived from the tax, and every taxpayer is entitled to receive the benefits for which he pays; (b) Under the three-year average the yearly assessment, though based upon one-third of each of three successive years is, in fact, a single current assessment and is not three separate assessments of one-third of the income for three successive years; that the change to the averaging system meant no change from an income tax applicable to the same three years on an annual income assessment; that under the averaging system no income escaped taxation, because the taxpayer paid an income tax in every fiscal year.

Application of this type of reasoning made it obvious that evasions of the following types would occur because in each instance the taxable person does not receive any benefits from the state:

1. Corporations dissolving immediately after liquidation of assets
2. Corporations dissolving years after liquidation of assets
3. Corporations reorganizing and continuing in the same business
4. Corporations merging and continuing in the same business
5. Parent companies taking over subsidiary companies' assets
6. Nonresidents selling Wisconsin property or discontinuing business in Wisconsin
7. Residents moving out of state but holding property in Wisconsin
8. Estates required to be held open

As a result of this decision and its inferences, the Commission recommended:[19] (a) Legislation which would permit the averaging out of the untaxed income of taxpayers having a taxable status, if such legislation could be made constitutional,

[18] April 1, 1930, Report of Wisconsin Tax Commission, 1930, pp. 196–197.

[19] Report of the Wisconsin Tax Commission, 1930, pp. 197–198.

or (b) Abolition of the averaging system.

The 1931 legislature repealed the three-year-average system, the repeal to become fully effective in 1934, and so ended Wisconsin's experiment with the averaging system.

The effect of the three-year average upon the income-tax base in Wisconsin is clearly shown as follows:

That the three-year-average method of assessing income taxes had a stabilizing effect both before and after the depression seems clear on the basis of the data below, making due allowance for the fact that there was a slight increase in rates in 1931.

Prior to the collapse of the stock market in October, 1929, as a general rule, taxpayers paid less income tax than they would have paid on the basis of the preceding year's assessment. Throughout the years of the depression, however, the

AVERAGE TAXABLE INCOME ASSESSED, 1928–1933[20]

Average of net income of	Assessed in	Taxable Income Assessed		
		Total	Individual	Corporation
1926, 1927	1928	$826,651,744	$657,384,718	$169,267,026
1926, 1927, 1928	1929	849,192,013	667,424,481	181,767,532
1927, 1928, 1929	1930	873,217,379	684,509,674	189,707,705
1928, 1929, 1930	1931	810,350,767	647,412,287	162,938,480
1929, 1930, 1931	1932	631,985,772	519,686,826	112,298,945
1930, 1931, 1932*	1933	557,646,114	468,636,957	89,009,157

* For the assessment of 1933 the taxpayer was allowed to use, at his option, the average income of 1930 and 1931 or the actual income of 1932.

It is significant to note that the average taxable *income* in 1929 was $849,192,013 and that after two years of the depression in 1931 it was still as high as $810,350,767. The amount of normal income *tax* collected in 1928 amounted to $15,859,275; in 1929, $17,689,101; in 1930, $18,545,713; in 1933, $8,600,587.

[20] Report of the Wisconsin Tax Commission, 1934, Table 40, p. 116.

[21] Report of the Wisconsin Tax Commission, 1934 Table 38, p. 114.

INCOME TAXES COLLECTED, 1930, 1931, 1932 AND 1933[21]

	1933	1932	1931	1930
Total Income Tax	$11,901,561.65	$18,430,973.17	$18,450,514.40	$21,137,252.70
Total Corporation	4,971,527.13	7,171,271.27	10,509,378.27	12,028,183.24
Total Individual	6,930,034.52	11,259,701.90	7,941,136.13	9,109,069.46
Total Normal	8,600,587.09	11,453,017.00	16,205,462.15	18,545,712.81
Corporation	4,267,419.94	6,135,370.26	9,022,687.84	10,329,278.18
Individual	4,333,167.15	5,317,646.74	7,182,774.31	8,216,434.63
Emergency Tax	2,175,531.74	5,401,473.49		
Teachers Surtax	1,124,293.60	1,547,815.77	2,227,577.86	2,542,163.69
Corporation	703,095.37	1,010,058.41	1,470,808.72	1,653,055.66
Individual	421,198.23	537,757.36	756,769.14	889,108.03
Soldiers Surtax	1,149.22	28,766.91	17,474.39	49,376.38
Corporation	1,011.82	25,842.60	15,881.71	45,849.58
Individual	137.40	2,824.31	1,592.68	3,526.80

reverse was the case, for the most part. In 1932, for example, many taxpayers in Wisconsin were assessed an income tax when the income on which this tax was levied had vanished three years previously. The taxpayer who had a taxable income in 1929 of $6,000 and nothing in 1930 and 1931 was assessed, by the averaging process, an income tax in 1932 based on an average income of $2,000. From the standpoint of the state the three-year average resulted in stabilizing tax receipts; but from the standpoint of the individual it defeated one of the basic purposes of the income tax, namely to place the burden of the cost of government on the ability to pay. Widening the gap between the time when the income was earned and the time when the tax was collected worked a great hardship on both individuals and corporations and placed upon the Tax Commission the difficult problem of collecting delinquent taxes from individuals and corporations several years after the income on which the tax was based had vanished.

CONCLUSION

In conclusion the methods of averaging that have been examined fell short mainly in the fact that taxpayers were assessed income taxes in years when they had no incomes. Any satisfactory system of averaging must overcome that hurdle, and it is toward such end that the following method is offered for consideration.

It is manifestly unfair to tax during just one period a large income that is the result of several years' work, though realized in one lump sum. It is just as unfair to assess a tax on a taxpayer long after the income has disappeared. Some device that requires the payment of a tax when the taxpayer is able to pay the tax and yet does not disregard the long-period aspect of income is called for. To this end is suggested a device that might be termed a "crediting or correction factor."

It is proposed that income taxes be paid, as at present, on an annual basis but that at the end of a number of years, e.g., five, an average of the income be taken for that period, the average tax payable thereon calculated and multiplied by five, and the difference between this average tax aggregate and the total actually paid by the taxpayer for the five years be credited to his account with the Government. In each succeeding year a new average income for the five years next preceding would be ascertained, and the taxpayer's tax liability for such succeeding year would be computed on the average income of such five years (but not multiplied by five). If the tax computed on the regular annual basis were *greater* than the tax as thus determined on the average basis, there would be credited to the taxpayer's account the difference between the average amount and the amount actually paid. If, however, the tax computed on the annual basis were *less* than the amount computed on the average basis, the amount payable would be the average amount, made up of the annual amount (in cash) plus the difference between the annual amount and the average amount (drawn from the accumulated credit of the taxpayer).

This accumulated credit would be carried forward from year to year and a refund in cash made only upon the death of the taxpayer, except that possibly at his request low-interest non-transferable bonds might be issued to him in the amount of such credit, these bonds to be redeemed by the Government or used for purposes of future tax payments.

If the excess of the average tax liability over the actual amount paid in any year caused the taxpayer's balance to become a *debit*, the averaging method would, nevertheless, continue to be used. For inasmuch as the Government would still receive, as always, the regular tax pay-

ment of the kind that it now receives, it would be no worse off than under present conditions. And if, as must be assumed throughout this proposal, the tax rates and other tax conditions remain unchanged, the averaging method would, after several years at the most, probably cause, in most cases, the debit balance in the taxpayer's account to swing over into a credit.

At first sight, this method seems to put income taxation on neither an annual nor an average basis, but to make it flutter back and forth between the two. Such, however, is not the case, for the taxpayer is continually receiving the advantages of the average device and receives positive evidence of this advantage when he has reëstablished a credit through overpayment on the annual basis. Use of the technique outlined above would mean that the tax would follow the income directly and yet take into consideration the long-period nature of income. Thus, there would be no penalty to taxpayers on the downswing of the business cycle, as there was under the methods used in England and Wisconsin. At the same time the long-period aspect of income would not be neglected, because the credit provision would equalize the amounts the taxpayer should justly have paid and the amounts he actually did pay during the applicable period.

EARLY UNIVERSITY EDUCATION IN ACCOUNTANCY

JEREMIAH LOCKWOOD

UNIVERSITY education for business is of recent origin. Forty years ago only one university in this country had a school whose major purpose was to aid in equipping students for careers in the business world. Since then the growth in the number of these schools of university grade has been rapid. Today, thousands of students are attending courses which are classified as business courses in our colleges of commerce, finance and accounts and in our colleges of liberal arts. Accountancy as a business study has moved rapidly toward the front ranks of the business subjects during this period. Only a few years ago, following a survey of courses offered by University Schools of Business, Professor Bossard, of the University of Pennsylvania, said:

> Accounting is the most fully developed subject or field of study in our collegiate schools of business. The objectives of accounting departments are usually well defined and clear; the courses in accounting are relatively standardized. Accounting is usually the first business subject to be introduced in college curricula. In fact, to many persons accounting stands in a peculiar sense as the Alpha of business education.[1]

These statements concerning accounting were not applicable to the accounting courses during the earlier years of the growth of collegiate schools of business. There were no accounting departments; objectives were not well defined and clear; courses in accounting were not standardized.

The purpose of this paper is to endeavor to shed some light on the contents of accounting courses and on the problems of teaching accounting during the years when the subject was first offered in institutions of higher learning. The period to be covered will be limited to the two decades preceding 1903. This period represents about one-third of the time during

[1] *University Education for Business*—J. H. Bossard and F. Dewhurst, p. 390, University of Pennsylvania Press—1931.

which accounting has been taught in these institutions. To shorten the period would result in confining the paper to courses as taught in one or two institutions. During the early years of the new century the courses in accounting were beginning to assume more definite form and content and to increase in number, due partly to the growth of the CPA movement and partly to the growing consciousness of the increasing importance of business education and of accounting in particular. Hence it has not been deemed desirable to lengthen the period beyond the twenty-year span.

The data for this paper secured from college catalogs had to be supplemented by data obtained from other sources. Much interesting material has been obtained by letter and by interview from former teachers and students of accounting. In addition, manuscripts and addresses of some of the earlier teachers of business subjects in universities contained references to difficulties and problems arising in teaching business studies. These sources although valuable have definite limitations. Catalog descriptions, in the main, have been meager, few educators have written on the subject of early accountancy instruction. Many of those who studied or taught the subject years ago have passed on or have had their memories dulled by the passage of time. Fortunately, some of those consulted seemed vividly aware of classroom events of bygone days.

Your president suggested that emphasis be placed on the development of accounting at the Wharton School of Finance and Commerce of the University of Pennsylvania and at the New York University School of Commerce, Accounts and Finance. Before doing this the early development of University Schools of Commerce will be briefly commented upon and some of the factors influencing the development of University courses in accounting prior to 1900 will be mentioned. The content of early accounting courses offered by some of the other institutions of higher learning will also be noted.

In 1851 a school of commerce was incorporated in the University of Louisiana but was apparently abandoned in 1857.[2] In 1868 the University of Illinois established a school, the name of which became the School of Commerce in 1870, to prepare men for the tasks of business. Bookkeeping was one of the subjects taught. In 1880 the Board of Trustees discontinued the school since "the attempt to construct a University School of Commerce along the lines of a business college have proven unsuccessful. The school had done little more than to prepare clerks and bookkeepers. It had not been realized that the function of a university school of commerce was to prepare for future leadership in economic enterprise, not for clerkships."[3] Twenty-two years later the School of Commerce was reëstablished in this institution.

In 1881 the Wharton School of Finance and Economy was founded through the generosity of Joseph Wharton. Its growth was slow during the early years but its influence was quickly recognized. No other schools of this type were established until 1898 and at the close of 1900 there were but seven such institutions in the country.

The movement in educational circles to establish schools of business encountered much opposition. Many educators sincerely believed that the best training for business consisted of a liberal-arts education to be supplemented by the practical training to be obtained in the business world. This view is held by many even today. In spite of opposition, however, the

[2] B. R. Haynes and H. P. Jackson—*History of Business Education in the United States*—Southwestern Publishing Co. 1934, p. 83.

[3] Conference on Commercial Education and Business Progress, University of Illinois, 1913, p. 2.

movement for higher education for business men gained headway due largely to the persistence of Edmund J. James, one time Professor at the Wharton School of Finance and Economy and later President of the University of Illinois. He was a very staunch advocate of university education for business. Speaking before the American Economic Association in 1900 on the subject of the "Relation of our Colleges and Universities to Higher Commercial Education," Dr. James, then professor in the University of Chicago, made the following statement:

> The movement in this country for college and university training for the future business man seems to have entered within the last year or two upon a new era in its history. Twenty years ago, when I first began to insist that our business classes stood in need of higher special or professional education, and that this education should be given in our colleges and universities, my voice was like that of one crying in the wilderness, unheeded either by the business world, on the one hand, or by the college world on the other.[4]

The development of accounting courses was also adversely affected by the attitude of opposition to business courses. It is hardly to be expected that those who did not believe that a break with past educational procedures was desirable should welcome the development of courses in accounting, or, as they were scornfully called, bookkeeping. Professor Henry Rand Hatfield, when Dean of the School of Commerce in the University of Chicago, requested the Mathematics Department of that institution to add a course in bookkeeping thinking that the unquestioned academic standing of the Mathematics Department would remove some of the odium or reproach attached to a course on bookkeeping.[5]

Professor James, in his address before the American Economic Association, referred to this feeling against accounting when discussing the branches of learning which he would include in the curriculum. He said:

> I should go still further. I should accept any practical subject which can be made a serious intellectual pursuit, if by so doing I could advance practical knowledge and increase intellectual training. Thus, for instance, the whole system of accounting, or as it is sometimes called with a sneering connotation "bookkeeping," I should make an element in all such curricula. The theory of accounting is as strictly a scientific subject as the theory of political economy itself, and steady application to this subject offers a stimulating and valuable mental discipline.[6]

There were a number of other factors hampering the development of accounting courses which should be considered in any discussion of early accounting instruction. Brief mention will be made of some of them.

In the first place there were no accounting textbooks suitable for use in the university classrooms. Although there were many texts on bookkeeping they were usually prepared for use in the business colleges. There were numerous editions of I. I. Hitchcock's *A New Method of Teaching the Art of Bookkeeping* first published in 1823. Many printings of Christopher Columbus Marsh's book, *Science of Double Entry Bookkeeping*, appeared between 1830 and 1886. Fifty editions or printings of Joseph Howard Palmer's *Treatise on Practical Bookkeeping and Business Transactions*, appeared during the period from 1852 to 1884. There were also many printings of books on single- and double-entry by other authors, notably, Peter Duff, Louis L. Williams, Ira Mayhew, John C. Colt and others.[7] However, it is not to be inferred that accounting had

[4] *Proceedings of the Meeting of the American Economic Association*, at Ann Arbor, Michigan—December 28, 1900. Third Series, Vol. II, No. 1, p. 144.

[5] Letter of Professor Hatfield to the writer—Dated November 27, 1937.

[6] *Proceedings American Economic Association*—1900. *Op. cit.*, p. 158.

[7] H. C. Bentley—*Works on Accounting by American Authors, 1796–1900*, Vol. I.

not advanced beyond the bookkeeping stage. A well developed body of accounting knowledge, based on English practices and procedures, was in existence in 1900. American authors had written extensively on the bookkeeping techniques applicable to various types of enterprises and a few books on corporation accounting, cost accounting, auditing, voucher systems and C.P.A. Questions appeared in the two decades between 1880–1900.[7] But these books were unsuited for use in the university courses in accounting. The 1901 catalog of New York University School of Commerce deplored the lack of textbooks on accounting and indicated that the lecture system, pending the preparation of textbooks, would be used in teaching higher accountancy at that institution. An instructor of accounting in the Wharton School prepared his own material for his accounting classes in 1889–1891. Another instructor at the same institution, ten years later, based his accounting course on Woodlock's *Anatomy of a Railroad Report,* which was published in 1895. Dr. Hatfield, of the University of Chicago, reports that he relied upon the earlier writings of Professor J. F. Schär of Germany, who published his book, *Single and Double Entry*, about 1894. The dearth of suitable texts was, no doubt, a hampering influence.

Another factor to be borne in mind in passing judgment upon the early courses in accounting was the difficulty of securing accounting teachers who were familiar with the subject. One of the early teachers of accounting, in discussing the papers which were read before the meeting of the Michigan Political Science Association held in 1903, said:

> What is the difference between bookkeeping and higher accounting? It is true that while bookkeeping was formerly held in poor repute, no one was familiar with the subject and it was denied that it had a place in the college curriculum. I am told that there are college professors not over a thousand miles from here who would not admit bookkeeping into their curriculum unless over their dead bodies.
>
> What is the difference? I do not know. I am teaching "accounting" myself and I can say freely that I don't know what it is and I don't know where to place it.[8]

A very prominent educator, Joseph French Johnson, Dean of the New York University School of Commerce, Accounts and Finance, expressed somewhat similar views at the annual meeting of the American Association of Public Accountants in 1910. During the course of his remarks he gave utterance to the following statements:

> Most of you know that many universities in the United States are now teaching or trying to teach accountancy. One of the reasons why I can only say that the Universities are "trying to teach" accountancy is that few men are trained to be teachers . . . and universities have found it an almost impossible task in the past 10 years to find men who can teach accounting. Those who knew it, couldn't teach, and those who could teach didn't know it.[9]

These foregoing remarks are illustrative of many others. They tend to point out some of the handicaps under which the earlier instructors labored. Accountancy as a practical course of instruction was frowned upon. Its growth was exceedingly slow. The instructors of accountancy knew very little about it. Furthermore, the teaching staffs in the newly formed schools of business were small and the burden of teaching the new courses which were being added fell upon the shoulders of a few. Staff members teaching accounting taught other courses such as Economics, Statistics, Modern Industrialism, Transportation, Insurance, Banking, History of Commerce and others. These additional bur-

[8] Dr. H. R. Hatfield, in the *Proceedings of the Michigan Political Science Association*, February 5–7, 1903, Vol. v, p. 183.

[9] *Proceedings of the American Association of Public Accountants*, 1910 Year Book, p. 132.

dens naturally retarded the development of accounting courses. The rapidity with which these courses would have developed if it had not been for the movement toward the legal recognition of accountancy —the C.P.A. movement—and the assistance rendered by practitioners of accountancy, can only be conjectured. There can be no question that the C.P.A. movement revitalized and strengthened materially the educational interest in the field.

With these preliminary thoughts in mind it is fitting that we turn our attention to the courses offered in accounting during its infancy as a course of learning in university schools of business.

EARLY UNIVERSITY INSTRUCTION IN ACCOUNTANCY AT THE UNIVERSITY OF PENNSYLVANIA

The Wharton School of Finance and Commerce of the University of Pennsylvania, originally called the Wharton School of Finance and Economy, was founded in 1881, almost 57 years ago, in order to give a general and professional training to young men who were planning business careers. The reasons motivating Joseph Wharton to found the school and its general organization are too well known to be repeated. In the early years, the courses in business instruction were confined to the junior and senior years of the Arts and Science course but later were extended to four years and the curriculum greatly modified. During 53 of its 57 years accounting has been taught in the school. Since 1887 the subject has been taught continuously.

The first course in accounting taught in the Wharton School was given as a required subject to juniors during the academic year 1883–1884. During the first term the course, which consisted of a series of lectures, was entitled "The Theory and Practice of Accounting." During the second term the work in accounting was devoted to "Expositions of Systems of Bookkeeping in Factories, Banks and Other Corporations and in Municipalities." For the senior year an optional course in Practical Bookkeeping was listed. This course was "taught orally and by requiring the students to keep a set of books according to the most approved forms."[10] Dr. Roland Post Falkner, now Director of the Publication Division of the National Industrial Conference Board, was a student in the first accounting course offered in 1883. During the course of a recent interview, Dr. Falkner stated there were twelve students in that accounting class. The instructor, Chester N. Farr, was a bookkeeper who was very familiar with the principles of debit and credit. Students were required to keep sets of single-entry and double-entry books. The books of original entry were limited to the use of the Day Book, Journal and Sales Book. In this course the principles of debit and credit were applied to the accounts of independent operators and accounts of a partnership, together with an explanation of the methods of allocating partnership profits. During the second term the students were required to keep a set of books for a manufacturer and also operated a theoretical set of blast-furnace books.[11] The next year Seldon R. Hopkins's *Manual of Exhibit Bookkeeping*, published in 1879, and C. C. Marsh's *Theory of Bank Bookkeeping and Joint Stock Accounts* supplemented the material presented in lecture form.[12]

No courses in accounting were given during the academic years 1885–1887. However, the teaching of the subject was renewed in the fall of 1887 and a new in-

[10] Catalogue of the University of Pennsylvania, 1883–1884, p. 32.

[11] Interview with Dr. Roland Post Falkner, New York City, November 26, 1937.

[12] Catalogue of the University of Pennsylvania, 1884–1885.

structor, Charles Gilpin, appointed. He taught a course called Methods of Accounting and it is believed he used his own book or pamphlet called The Theory of Double Entry Bookkeeping, which he had published in 1886.

In a report rendered to the Provost of the University of Pennsylvania on January 1, 1888, Edmund J. James, Professor of Finance and Administration, reviewed the work of the school during the seven years of its existence and described in detail the nature of the courses which were offered. His statement concerning accounting was as follows:

> A course in the Theory of Accounting, to which are devoted four hours a week throughout the junior year. Practical work is insisted upon only so far as it is necessary to understand the theoretical aspects of the subject and the general principles which underlie all special systems.[13]

The work in accounting during the next few years was under the supervision of Dr. Roland Post Falkner, a graduate of the School, Class of 1885, who had obtained his Ph.D. degree at the University of Halle, Germany, in 1888. At the request of Professor James, Dr. Falkner studied methods of teaching accounting in some of the higher commercial schools in France prior to returning to America. He was appointed Instructor in Bookkeeping on September 4, 1888 and taught the course in Methods of Accounting until he obtained a temporary leave of absence four years later.[14]

Upon taking charge of the accounting work, Dr. Falkner decided that the course should be pitched on a higher plane, if possible, than the courses given by the business colleges. The inquiries made by him concerning methods of teaching accounting in the Superior School of Lyons, France, and his studies of the accounting books used by this school had a considerable influence on his work as a teacher. American texts on elementary bookkeeping began with day-book entries. The French school's approach to the subject was by means of account analysis. Dr. Falkner believed that the subject could be presented more satisfactorily if he were to begin the subject by analyzing the accounts. This was the method of approach used by him. During the first year of his teaching, Dr. Falkner supplemented his lectures with a textbook. The instruction on journalizing was hampered by the fact that the textbook used listed transactions of a wholesale grocer during a period preceding the Civil War and none of the computations for the transactions were extended. The students were required to make all computations. They also had difficulty in journalizing the many puzzling entries involving bills payable and bills receivable, these entries originating in bills arising through the drawing of drafts or bills by one merchant on another. The unsatisfactory experiences with a text prompted Dr. Falkner to prepare pamphlets giving twelve sets of transactions, all computations being extended. Some of these sets of transactions were prepared to illustrate the operations of individual businesses, partnerships and corporations, all engaged in mercantile operations. The transactions illustrated the use of multiple books of original entry, individual ledgers and the use of a private ledger. The sets also included transactions for a bank, an iron foundry, executors, and for bankruptcy accounting. These bookkeeping sets were not unduly long, only being carried out far enough to illustrate the application of the principles of accounting to various businesses.[15]

In commenting upon Dr. Falkner's course in accounting, the report of the Dean of the College, Dr. Horace Jayne,

[13] Annual Report of the Provost of the University of Pennsylvania, including reports of Departments for year ended October 1, 1887.

[14] Roland Post Falkner, *op. cit.*, November 26, 1937.

[15] *Ibid.*

to the Provost of the University, in February 1890, contained the following statement:

> The instruction in bookkeeping which was open to criticism in previous years has been put upon a new basis and is now one of the features of the department.[16]

In an address on Schools of Finance and Economy before the Convention of the American Bankers' Association at Saratoga, New York, on September 3, 1890, over 47 years ago, Professor Edmund J. James briefly explained the nature of the business courses taken by the students in the Wharton School. His remarks concerning the accounting course are of interest. Said he—

> Finally, parallel with these courses [in history, political science, economics, finance and banking] which are all more or less general in their nature, are the business courses in the narrower sense of the term. . . . They consist of three parts: First, a course in the general theory of accounting; second, in business law; third, in business practice. The first embraces a careful study of the general principles underlying single and double entry, also the study of a dozen or more sets of books carefully selected from leading branches of business and representing the best practice of typical houses. A special point is made of developing the general principles and then illustrating typical variations or applications so that the student can understand with ease any set of books he might have occasion to examine or use. The idea is not so much to make an expert bookkeeper in any one set of books or style of accounting as to train the student so that in a short time he could become expert in any position he might take; and above all so that he can understand with facility and unravel with ease any set of accounts. Another point to which much attention is directed is corporate and public accounting. It is hoped that in course of time a reasonable system of accounting can be introduced into the practice of our cities, counties and state governments.[17]

The course in accounting, to which reference was being made was given four hours a week throughout the year.

Following Dr. Falkner's temporary absence from the University, this elementary course in accounting was given by others and was not taught by Dr. Falkner until faculty changes made it necessary for him to teach it during the academic year 1899–1900.

On February 7, 1893, Joseph French Johnson, a graduate of Harvard in 1878 and a former newspaper owner, was appointed by the Trustees of the University to be Associate Professor of Business Practice. He was a man of wide experience and, judging from the reports of those associated with him on the faculty, an able teacher who was popular with the students. During his teaching tenure at the Wharton School he taught courses in banking, economic literature, newspaper practice, newspaper law, accounting, business practice and other subjects. His course in accounting and business practice required for one term in the sophomore year dealt with the organization and accounts of corporations, operations of stock exchange brokers, banks and clearing houses.[18]

In 1899 and 1900 the men who had been carrying the burden of teaching accounting resigned from the institution to accept other positions and the Wharton School was forced to build anew its courses in accounting. Courses in Accounting, Advanced Corporation Accounting and in Cost Accounting were established on a firm basis within a few years.

EARLY UNIVERSITY INSTRUCTION IN ACCOUNTANCY AT OTHER UNIVERSITIES

Shortly before the turn of the century other schools of commerce were beginning to appear on the educational horizon. The Wharton School had passed beyond the experimental stage with its courses, in-

[16] Report of the Provost of the University, 1890, p. 73.

[17] Proceedings, addresses, etc.—American Bankers' Association, 1890.

[18] Catalogue of the University of Pennsylvania, 1894–1899.

cluding accounting, had begun to assume definite form and content. The new institutions establishing their courses in commerce, accounts and finance were ready to begin experimenting on their own behalf. The early courses in accounting offered by them merit attention.

At the University of Chicago, the Department of Political Economy, which was giving some courses in business, offered a course in Railway Accounts, Exchanges, etc., to be given in the autumn quarter of 1898. This course was to be taught by a new instructor, Dr. Henry Rand Hatfield, who had received his Ph.D. degree in 1897. Dr. Hatfield had some experience in the business world, having spent five and one half years in a bank and bond house. During a portion of this time he worked on the books and records, including the general books of the bank. His academic training did not include any courses in bookkeeping or accounting.[19]

The course in Railway Accounts, Exchanges, etc., included a study of the financial methods of leading railroads, training in railroad accounts and auditing, forms of securities, bond tables, and causes regulating the price of bonds and securities. In 1899–1900 its title was changed to Technique of Trade and Commerce, and it was expanded to include discussions on customs regulations, insurance, commercial documents and exchange and arbitrage.[20] The following year saw a very marked change in the work. A course called *Accounting* was offered. In the catalog it was described as follows:

47—Accounting—Winter Quarter. A study of the underlying principles. Some practice work under the guidance of an expert auditor of accounts will be given but only with a view to illustrating the principles discussed in the lectures. Emphasis will be placed on the interpretation of balance sheets and the problems implied therein.[21]

[19] Letter of Dr. H. R. Hatfield, *op. cit.*, November 27, 1937.
[20] Registers of the University of Chicago, 1897–1900.
[21] *Ibid.*, 1900–1901.

The course was given by Dr. Hatfield, assisted by Mr. Trevor Arnett, who was employed in the Comptroller's office of the University. In commenting upon these courses, Dr. Hatfield recently stated—

The beginnings were feeble. I think you can ignore the courses in 1898–1901. I returned to the University in April, 1901 from a six-months' leave, during which I went to Europe to see what the Colleges of Commerce in France and Germany were doing. As a result I offered 47. Accounting on my return and continued to give the course until I left Chicago for California in January, 1904. . . . We used no text book. The class was small. I followed largely the earlier writings of Professor J. F. Schär.[22] [The latter was a German professor who wrote a treatise on single- and double-entry bookkeeping in 1894, which was reprinted in 1901.]

Three years later two accounting courses were offered and were to be preceded by a course in bookkeeping to be given by the Mathematics Department. The courses were becoming very definite and accounting problems were being recognized. In the description of the elementary courses reference is made to reserves, depreciation, valuation questions, capital expenditures and operating expenditures. The advanced course in accounting included discussions of bank accounting, auditing procedure, principal features of railway accounting and discussions of the work of the Public Accountant. This advanced course was to be conducted by experts from Chicago institutions.

In addition to accounting, Dr. Hatfield taught other courses at the University of Chicago. These included courses in Civil Government, Principles of Political Economy, History of Commerce, Processes of American Industries and a course in Banking.

Although the College of Commerce of the University of California was established in 1898, no accounting courses were listed as being taught prior to 1902–1903.

[22] Letter, H. R. Hatfield, *op. cit.*

In this year a course known as Economic 14, called Corporation Finance and Accounting, was offered by Dr. Carl C. Plehn, Associate Professor of Finance and Statistics. This course, given two hours per week for one term, included a study of negotiable securities, examination of bank statements, railroad accounts and available corporation accounts, as well as a study of accounting principles and credit based on methods of large corporations and the government. The course in Corporation Finance and Accounting was one of many courses on Dr. Plehn's roster. He also taught courses in statistics, economics, banking and public finance.[23]

In the following year Henry Rand Hatfield was added to the staff of the University and introduced a course on Principles of Accounting with emphasis on the accounts of the balance sheet and profit-and-loss statement.

Ohio University established its Commercial College about the same time as the University of California. The course was a four-year one, the first two years being preparatory and the last two of collegiate grade. Some work in accounting, typewriting and stenography had been offered in the Commercial Department which preceded the establishment of the Commercial College by four or five years. The course in Theory of Accounts offered in 1896–1897 and continued for a number of years thereafter, was described as follows:

> Theory of Accounts—5 hours per week—2 terms. Ample practice is given in the systems of accounts used in various kinds of business from retailing to modern banking. It is the aim of this course to give the student a wide acquaintance with business methods and to secure proficiency in opening and closing books, journalizing, rendering statements, tracing errors, analyzing accounts and drawing business papers.[24]

[23] Register of University of California, 1898–1904.
[24] Bulletin—Ohio University, Athens, Ohio, 1896–1897.

A course in Corporation Accounting for one term was added by this institution in 1901–1902. The new course was not limited to accounting but also covered the organization, management and financing of corporations.

The Graduate School of Business Administration, known as the Amos Tuck School of Administration and Finance, was established at Dartmouth through the generosity of Edward Tuck in 1899. Three courses in accounting were listed to be taught in 1900. These courses in accounting were described as follows:

> 1. Principles of Accounting.
>
> A series of lectures on the principles of Railroad and Industrial Accounting as applied to financial and operating administration. Methods of corporation bookkeeping.
>
> 2. Theory and Practice of Railroad Statistics.
>
> . . . Relation of accounting, auditing and statistics to operation . . . Revenue Accounting, Disbursement Accounting, Store and Car Accounting, General books, side ledgers, . . . organization and methods of accounting office, the division and general office, the shops, storehouse and station agency.
>
> 4. Accounting and Auditing.
>
> Nature of the balance sheet and determination of what constitutes a profit. Accounting methods of corporations. General principles of auditing. Theory of depreciation. Going concerns vs. those that have ceased operations. Economic value of locations.[25]

The next year the Accounting and Auditing courses were reorganized and consisted of—

(1) A series of lectures including a consideration of accounting as a profession.

(2) Theory and Practice of Accounts and Audits. This was a practice course dealing with the general books, opening, conducting and closing accounts of many systems, trial balance, cost, depreciation, auditing

[25] Dartmouth College Catalogue, 1900–1901.

and arranging accounts with a view to facilitating audits, etc.

(3) Theory and Practice of Railroad Accounting, which was similar to the course in Theory and Practice of Railroad Statistics offered the preceding year.

These courses stressed the practical side of accounting, under the supervision of professional accountants of Boston and a statistician of the Lehigh Valley Railroad.[26]

The University of Michigan added courses in Commercial Education and Public Administration in 1900, which were open to students in the junior and senior years. Prior to this time, however, courses in Transportation, Finance and Industrial History of the United States had been offered by the Department of Political Economy and Sociology.

A new course, Science of Accounts, to be given two hours per week for one term, was offered during the academic year 1901–1902. The instructor in this course, Durand W. Springer, bore the title Lecturer on Accounts. Mr. Springer, who in later years was Secretary of the American Society of Certified Public Accountants, was a graduate of Albion College, Michigan in 1886. Upon graduation he became a practicing accountant and also taught bookkeeping and accounting at Albion College and at the Ann Arbor High School, joining the teaching staff of the High School in 1893. He was well equipped to teach the subject at the University of Michigan, having a background of fourteen years of practical work and teaching experience. The course in Science of Accounts, which he taught, was limited to theory inasmuch as Dr. Henry Adams, the Chairman of the Economics Department which was giving the course, requested the new instructor to stress theory rather than practice. In the following year, Mr. Springer offered an additional course in the Science of Accounting for two hours per week during the second term. Mr. Springer's comments on this course follow:

> When the additional course was offered, it brought to that course those who had pursued under the writer's direction, the theoretical presentation which had been given the first year. In the group taking accounting for the first time it was found that they had come from families with a variety of business interests. . . . One of the boys came from a family interested in an average country newspaper plant. The father of another one of the boys was interested in a country bank. Still another was interested in a wholesale grocery house. While I do not recall all of the special types of interest I do know that each chap in the class was given the opportunity of making a special study of the accounting involved in the particular business in which he had a special interest. The boys were encouraged to prepare articles with a practical value and at least three that I now recall were awarded prizes in contests that were open to extended competition.[27]

A short course on the Science and Practice of Accounting was given by Mr. Springer to the Seniors in the School of Pharmacy. This was a practical course and much stress was placed on record-keeping.

Brief mention will be made of courses in accounting offered by certain other universities from 1900 to 1902. The School of Commerce of the University of Wisconsin offered a one semester course in 1900–1901 in Business Forms and Accounts. This was conducted by the Professor of Theory and Practice of Domestic and Foreign Exchange. In 1901–1902 the title of the course was changed to Accounting and Auditing. Special lecturers assisted the professor in charge of the course. A one-term course in Principles of Accounting was introduced at Harvard University in 1900–1901. This course, under William Morse Cole, consisted of lectures, discussions and reports. It was open only to seniors and graduate students. In 1901 the

[26] *Ibid.* 1901–1902.

[27] Letter of Durand W. Springer to the writer, December 13, 1937.

University of Vermont offered a course entitled *Accounting*, which dealt with single and double entry, accounts of an individual, of a partnership, and the, accounting of manufacturers, shippers wholesalers, as well as corporation accounting.

Within the next few years many additional courses were developed by the universities which have been mentioned and by many other institutions. These accounting courses were open to regularly enrolled undergraduates or in a few instances to graduate students. Collegiate instruction in the theory of higher accountancy was not available to non-college men or women. Another institution was to pioneer in this field, to make available to those employed during the day an opportunity to study business subjects at night and to place an additional emphasis on the subject and on the profession of accountancy. That institution was New York University.

EARLY UNIVERSITY INSTRUCTION IN ACCOUNTANCY AT NEW YORK UNIVERSITY

The School of Commerce, Accounts and Finance was approved by the Council of New York University on July 28, 1900 and was opened in the fall of that year. Much of the credit for the founding of the school must go to Charles Waldo Haskins of the accounting firm of Haskins and Sells, and to the New York State Society of Certified Public Accountants.

In 1896 the Legislature of the State of New York passed a bill to recognize, legalize and safeguard a new profession, that of public accountancy. Charles Waldo Haskins was elected president of the first Board of Examiners to pass upon the eligibility of candidates for the degree of Certified Public Accountant. In 1897 the New York State Society of Certified Public Accountants was organized and Mr. Haskins became its first president. This organization early became interested in educational work and in November 1899 requested President Haskins to approach the Trustees of New York University relative to the organization of classes in accounting, finance and economics. As a result of conferences between the New York Society of Certified Public Accountants and officials of the University, the new School of Commerce, Accounts and Finance was formed. Speaking at the unveiling of a tablet on December 17, 1910, commemorating the services of Charles Waldo Haskins to New York University, Acting-Chancellor John H. MacCracken stated—

> As I understand it, those who proposed the organization of this School wanted first of all the help of an educational institution in creating and maintaining a new profession—the profession of certified public accountant, and secondly, they wanted instruction which should widen the outlook of young business men, enrich their lives and fit them for the wider opportunities which modern industrial organization affords. I recall that the Chancellor [Henry M. MacCracken] said more than once, that this school differed from all other University Schools of Business in that it had "as its backbone," as he expressed it, the task of preparing men for a definite profession, the profession of the accountant. Mr. Haskins saw ten years ago what the rest of the world has come to see more clearly since—that the intricacies of modern corporate organizations and the multiplying of governmental activities was destined to create a new profession or give a new significance to one already existing in a minor way.[28]

The aim of the new school was twofold: to raise the standards of business education and to furnish thorough instruction in the more advanced work in professional accountancy. Courses of studies were established in Accounting, Commerce, Finance, Law and Administration. Classes met from 8 P.M. to 10 P.M. Monday to Friday, inclusive, during the academic school year.

[28] Charles Waldo Haskins—*An American Pioneer in Accountancy*, Prentice Hall, 1923, p. 117.

The instruction in accounting during the first year, 1900–1901, included courses in Theory of Accounts, Practice in Accounting and a course in Auditing. The course in theory emphasized the principles of accounting, the purposes of accounting, single and double entry and the different books of account. In the course on Practice the accounts of individuals, partners, and corporations were discussed, as well as municipal accounts, federal accounts, receivership, trusteeship, liquidation and statement of affairs. The course in auditing stressed methods of procedure in examining accounts of individuals, partnerships and corporations, as well as a verification of balance sheets and statements of profit and loss.[29] It should be mentioned in passing that this three fold division of accounting instruction closely paralleled the New York C.P.A. requirements which provided for examinations in Theory of Accounts, Practical Accounting and in Auditing.

The following faculty members were in charge of the work in accounting:

Charles Waldo Haskins, C.P.A.—Dean of the School and Professor of Auditing.

Charles E. Sprague, Ph.D., C.P.A.—Professor of Theory of Accounts.

Ferdinand William Lafrentz, C.P.A.—Professor of Auditing.

Anson O. Kittredge, C.P.A.—Professor of Theory of Accounts.

Henry R. M. Cook, C.P.A.—Professor of Practical Accounting.

Leon Brummer, C.P.A.—Professor of Practical Accounting.

These men were practicing accountants, some of them of many years standing. Dr. Sprague was perhaps the oldest member of the staff teaching accounting, he being about 58 at the time, Professor Kittredge was about 52 and C. W. Haskins, the Dean of the School, was 48. The accounting courses were conducted on a lecture basis due to the absence of textbooks. In addition to four hours of accounting the work of the first year included four hours of law and two hours of commerce and finance. In courses other than accounting, textbooks were used.

Within two years the curriculum of the School was greatly expanded, the catalog of the University listing eight courses in Accounting, six in Commerce, seven in Business Law and ten in Finance. Additions to the faculty were made—Joseph French Johnson, formerly of the Wharton School, became Professor of Political Economy; Dr. Frederick A. Cleveland and Dr. E. S. Mead, of the Wharton School, were added to the staff as Lecturers in Finance and in Industry, respectively. The expansion in the number of accounting courses and in student enrollment resulted in Messrs. R. M. Chapman, George Young, H. M. C. Vedder and William Dennis being added to the accounting staff, the two latter gentlemen being graduates of the School in 1902.[30] At this time two major courses were offered, one in Accounting and the other in Commerce and Finance. Upon completion of the course the degree of Bachelor of Commercial Science was granted.

Many interesting comments have been gathered concerning the first class which entered the New York University School of Commerce, Accounts and Finance in the fall of 1900. The limitations of this paper will not permit of any extensive comments. Two or three interesting observations will, however, be made. A student in the first class, later a faculty member at the institution, commented as follows:

> The first class entered in September, 1900 and was composed of thirty-one men. Twenty-four were graduated in 1902. The average age was around thirty. All were employed during the day

[29] *Bi-weekly Bulletin*, New York University, Vol. I, No. 1, February 15, 1901, pp. 295–296.

[30] *Ibid.*, Catalogue of New York University Bulletin of January 15, 1903.

and the school sessions were held in the evening. Five of the class had college degrees. Most of the others had high school training. Two were school teachers, ten bookkeepers, one a social worker. A number were aspiring to the C.P.A. certificate, which seven or eight later received.

All the courses in 1900–1902 . . . were given by lecture and no text books were used that I can remember. The New York C.P.A. questions were not studied, but the professors drew upon their own experiences as practicing accountants. . . . The contact with Professor Sprague and with such men as Haskins, Lafrentz, President of the American Audit Co., Kittredge, President of what was then called the Account Audit Assurance Co., Cook, Auditor of the Board of Education of the City of New York, and Brummer, Secretary of the State Society of C.P.A. and in public practice himself, was a most valuable part of our experience.[31]

Another student, now a Certified Public Accountant and a member of the first graduating class, comments rather interestingly about the accounting work. He says—

Mr. Dennis [later a faculty member] who was himself a student in the first class in the University, organized a class in bookkeeping, the work being done by the students before the regular classes. In common with many of the students I found that the instruction was perhaps a little too far advanced for us. That is, the elements of practical accounting were not stressed enough until Mr. Dennis organized his class. I think that this perhaps was not the fault of the course, but rather that we students had not the proper background at the time and consequently could not entirely grasp the subject matter presented. Some of the students lacked bookkeeping experience entirely, this being particularly true of the two Japanese students who were in the class.[32]

Many interesting recollections were secured from Mr. F. W. Lafrentz who taught in the School. Mr. Lafrentz's background, like that of the other accounting professors, was exceedingly practical. He had taught bookkeeping many years before in one of the Bryant and Stratton Business Colleges in Chicago, becoming manager of the college in 1881. His public-accounting work began in 1880. He stated that students in his class were quite mature and very earnest in their work. No text was used by him and he drew upon his previous teaching experience and his public-accounting work to illustrate the principles which he developed in his lectures.[33]

Leon Brummer, who was a professor in the New York University School of Commerce, Accounts and Finance during its first year, in the course of an address delivered at New York University on December 17, 1910, made the following remarks regarding the early work in accounting:

I know that, judging from my own class, the accounting knowledge of the students was so ungraded, the knowledge of the teacher and his ability to teach were so uncertain, and the confidence of the scholars, who were continually asking for instruction in higher accountancy, was so wanting that nothing but the persistent efforts and the personal encouragement of Charles Waldo Haskins kept the School from following in the footpaths of those which had gone on before.

As I look upon the scene and upon the inexperience of the early teachers, the absolute absence of guiding precedents, the want of literature, the eagerness of all those students for instruction in accounting, it is not at all surprising that the older and unschooled accountants of today [1910] fear to undertake the duties of a teacher in this school but leave the task mostly for those men who have graduated from the school.[34]

It is to be regretted that time limitations make it impossible to comment further upon the personalities, lectures and development of courses of those entrusted with the early accountancy work at New York University. But to the students of the first two or three classes, Professors Haskins, Sprague, Kittredge, Dennis, Lafrentz, Hardcastle and Deane are more than mere memories. They stand for some-

[31] Orrin R. Judd, C.P.A. Treasurer of the Kings County Savings Bank—Letter November 30, 1937.

[32] George H. Iffla—Certified Public Accountant, New York—Letter December 6, 1937.

[33] Interview—F. William Lafrentz, Chairman Board of American Surety Co., November 26, 1937.

[34] *Journal of Accountancy*, February 1911, p. 255.

thing significant in the development of accountancy education, an opportunity to acquire from men of wide experience a knowledge of the theory and practice of accountancy at a time when a new profession was beginning to emerge and to secure legal recognition.

In concluding this paper the writer wishes to emphasize again that attitudes toward the introduction of business courses, to accounting in particular, to lack of texts, and to the general unfamiliarity with the subject of accounting were no doubt major factors retarding its development during the early years when taught as a university subject. Those who pioneered in the work were in many cases burdened with other courses and thus prevented from developing accountancy courses more rapidly. Upon the work of these pioneers future teachers and practitioners continued to build, to expand, to define objectives clearly and to develop the accounting departments in our university schools of business. If Accounting is the Alpha of business education much credit for its present position in the curriculum is due to those who strove to teach it in the universities when texts were scarce and when courses in accounting were looked upon with much disfavor.

CHARACTERISTICS OF BOOKKEEPING BEFORE PACIOLO

RAYMOND DE ROOVER

It is now generally accepted that double-entry bookkeeping is by no means the invention of one man nor the product of a single generation, but that it is the result of a long evolution.[1] Even today, we see that it progresses under the spur of actual needs, and its development is the result of a persistent effort to adapt the account methods to the growing requirements of business enterprise. As we shall see, its evolution in the past has been dominated by the same commanding necessity of adaptation.

There is, however, still one dark spot in the history of accounting. Although we can perceive fairly well how the double-entry system developed, once the basic principle of duality and equilibrium was laid down, it is hard to understand how it came into being. As a matter of fact, the specialists of the history of bookkeeping have all tried to solve the problem and to offer some satisfactory explanation. Owing to a lack of source material, these solutions, however, are based mainly on conjectural reasoning rather than on factual evidence.

As you probably know, double-entry bookkeeping originated in Italy and the first example of it is found in Genoese records of the year 1340. It arose from the economic conditions which prevailed in the Italian commercial cities at the end of the Middle Ages. We have, therefore, to look towards Italy, if we want to find the clue to our problem. Fortunately, many excerpts or full texts of medieval Italian account books, which were unknown to former historians, have been published in recent years. These publications seem to throw some light on the stages which led to the emergence of double-entry bookkeeping. On the basis of this new material, I shall venture an explanation of the crucial problem. I am fully aware that the explanation which will be offered is not entirely satisfactory, but it seems to me that it points towards an acceptable solution. This is, I believe, its chief and its only merit.

[1] A. C. Littleton, *Accounting Evolution to 1900* (New York, 1933), p. 22.

It is not possible here to support any statement by quotations from the documents on which it is based. Therefore, I have to restrict myself to the conclusions called for by the recent publications of source material. Those who want to go further into the subject will kindly refer to my recent study in a French review.[2]

Three factors seem to have contributed to the development of accounting: credit, partnership, and agency. Let us deal with credit first, because it gave rise to the earliest and most rudimentary accounting records. Before the commercial revival of the twelfth century, the peddler or traveling merchant did not feel the need of keeping any records. Most of his dealings consisted of cash and barter transactions which were settled as soon as they were concluded. Moreover, the peddler's business could be managed without resorting to any clerical work. This ceased to be true at a little higher stage, when merchants began to extend credit to their fellow merchants or to customers. It did not take long before they discovered that memory was too treacherous to be relied upon. As a result of some deceiving experience, they began to write down all transactions which involved credit, so as to keep track of amounts outstanding. At this early stage in the development of bookkeeping, there is no question of forming real accounts. Each transaction was recorded separately, leaving a small blank in order to indicate how the settlement took place. In many cases such indication is even lacking and the original entry is simply cancelled with a stroke across.

As account books could not yet be used as evidence before the courts, the entries frequently mention the name of one or two witnesses in the presence of whom the transactions were concluded. This was obviously done to have legal witnesses in case the debtor contested the claim. Sometimes, the debtor wrote and signed a promise to pay in the account book of the creditor. In general, transactions were recorded as they occurred. In order to economize paper, they were, however, often entered wherever spare space was left among other entries of an earlier date. It should also be stressed that, at this stage, all transactions were registered in one and the same account book.

But economic life does not stand still. Partnerships, at first formed only for the duration of a single venture, began to assume a more permanent character and were no longer occasional agreements. At the same time, the sedentary merchant resorted more and more to agents who looked after his interests abroad and in other cities. These new developments involved new problems. The formation of partnerships called for better methods of record-making in order to ascertain the profits and to determine the share of each partner. This aim could only be achieved in following up all the changes which the common equity of the partners underwent in the normal course of business. Almost the same problem faced the agent who had to render the account to his principal of all the goods which were entrusted to him. As these changes came along, and as business, even outside of partnerships and agencies, extended more and more, it became apparent that the single account book kept hitherto was a source of confusion and entirely inadequate to meet the new requirements. Obviously, some more appropriate method of classification had to be contrived.

We are here on the eve of a very important development, and I think it is worthwhile to pause a moment and to consider why classification is so important. I am greatly indebted to Professor A. C. Littleton, who discussed the matter with me and

[2] Raymond de Roover, "Aux origines d'une technique intellectuelle: La Formation et l'Expansion de la Comptabilité à partie double," *Annales d'Histoire économique et sociale*, IX (1937), 171–193, 270–298.

who pointed out that classification is the very essence of bookkeeping. Even the basic principles of duality, which is at the root of the double-entry system, is not so essential as one is inclined to think. Accounting is largely a means of classifying entries into their proper pigeonholes, which are called accounts. Double-entry was born when people came to see that you could not take something out of one pigeonhole without putting it into another. Apparently, this is simple, but it took a long time before the mechanics of it were fully understood.

Let us now examine how, in the Middle Ages, a better method of classification was gradually achieved. In my opinion, improvement was the result of progress in three different directions, namely:

(1) a constant improvement in the presentation of the individual accounts and, finally, the adoption of the bilateral form;

(2) the replacement of the single memorandum by a set of several books, each book serving a different purpose;

(3) the integration of personal and impersonal accounts into a cohesive system.

As to the first objective, real accounts began to take shape with the growing tendency of grouping together all items relating to the same person. This result was attained by leaving more space to provide for subsequent entries. No attempt was made in the beginning to segregate debit and credit entries. The exact nature of each entry had to be inferred from the text.

Some further improvement was made by dividing the ledger into two sections: one for the accounts receivable and another for the accounts payable. Under each initial credit or debit entry, some space was left blank in order to enter the payments made or received. This form of presentation is called by the Italians *a sezioni sovrapposte*, because the accounts are divided into horizontal compartments, one placed above the other.[3] This system was only practical in so far as each account did not record too many transactions. If more space was needed than had been anticipated, there was still some danger that the debit would run into the credit or vice versa.

To obviate these defects, the next step taken was to establish a clearcut division between the debit and the credit entries. For that purpose, the ledger remained divided into two sections but the first half was reserved for all items involving a debit and the rear for all those involving a credit. Thus, the debit of any account was placed in the front section and the credit, in the rear of the ledger.[4] By doing this much confusion was evidently avoided. The system, nevertheless, was still rather unhandy and cumbersome. The individual accounts were in a certain sense disrupted, as debit and credit were found at different places in the ledger. To close and balance an account was not a simple matter: the debit and the credit had to be added separately and the lower total of the two had to be transferred from one section of the ledger to the other, and then subtracted from the higher one. This procedure was greatly simplified, when people finally found it more convenient to place the debit and the credit of each account opposite each other. This form is generally known as the bilateral form. With its in-

[3] This system seems to have been less scarce than I have assumed on page 180, note 2, of my above-mentioned article. It is found in a ledger for the years 1431-34 (MS. 496) of the Selfridge Collection of Medici documents at Harvard, which I have had an opportunity to examine thoroughly, since my arrival in this country. Cf. Florence Edler, *Glossary of Mediaeval Terms of Business: Italian Series, 1200–1600* (Cambridge, 1934), pp. 351 f.

[4] This form is found in the ledgers of Francesco Datini, an Italian merchant of the late fourteenth century. A good example is given by Enrico Bensa in his *Francesco di Marco da Prato* (Milan, 1928), pp. 409–411. Cf. Gaetano Corsani, *I fondaci e i banchi di un mercanto pratese del Trecento* (Prato, 1922), p. 71 and R. de Roover, *op. cit.*, p. 274. Even earlier examples are given in the appendices of Armando Sapori's book on the Del Bene Company, *Una Compagnia di Calimala ai primi del Trecento* (Florence, 1932), pp. 362–378.

troduction, the account took a form which it has retained up to now. We are, however, getting away from the bilateral form, as accounts kept by a machine have a third column giving the balance after each new entry.

As we have seen before, the single memorandum was in danger of becoming a hodgepodge of the worst sort. The medieval bookkeepers, therefore, looked for some way of substituting order for chaos. They solved the problem by replacing the single memorandum with several books. Different books were kept for different purposes, thus affording an easy means of classification.

As early as 1277, a company of Sienese merchants kept simultaneously at least six or seven books among which were a ledger, a cash book, and a *libro dei chapitali* (book of capitals) which contained the accounts of the partners and the principal employees.[5] The Peruzzi, a company of merchant-bankers, who had a network of branches all over Western Europe and the Near East and went bankrupt in 1343, kept a great number of books, both in the central office and in the various branches. At the top of the whole structure were a *libro dell'asse* or general ledger and a *libro segreto* which contained the accounts of the partners and the branch managers. These two books were the only ones that escaped destruction owing to their value for the settlement of the bankruptcy.[6] The number of books is also quite conspicuous in the Florentine woolen industry. The Medici account books preserved at the Harvard School of Business Administration, for instance, show that the fifteenth-century cloth manufacturers used various books, namely a ledger, a journal, a wage ledger, and several wage books.[7]

[5] Guido Astuti, *Il libro dell'entrata e dell'uscita di una compagnia mercantile senese del secolo XIII, 1277–1282* (Turin, 1934), pp. x–xii.

[6] Armando Sapori, *I libri di commercio dei Peruzzi* (Milan, 1934), xxiv–xxx.

[7] Edler, *op. cit.*, p. 355.

Some of the numerous books in use before the introduction of double entry overlap to a certain extent. I have the feeling that their number could have been reduced appreciably by a more systematic organization. In my opinion, the use of empirical methods is largely responsible for the considerable amount of duplication in the medieval records, as is, also, the fact that the single-entry system does not provide any check on the accuracy of the accounts.

The spread of double-entry bookkeeping, in the fifteenth century, introduced a better and more accurate method of classification. It entailed a great deal of simplification and a number of books dropped out. The cash book, for instance, was superseded by the cash account, the *libro segreto* was rendered superfluous by the proprietorship accounts in the ledger, while the journal took care of the transactions formerly dispersed in miscellaneous notebooks. It should, however, be observed that for obvious reasons the reduction in the number of books was far greater in the mercantile than in the industrial enterprises.

As for the third point, the integration of personal and impersonal accounts into a cohesive system, personal accounts for receivables and payables were in the beginning the only accounts known. As partnerships and agencies grew, the necessity was felt to keep also records of goods and expenses. Records of that kind make at first only a casual appearance in the account books under the form of simple annotations. As time goes on, these records are encountered more frequently and take the form of real accounts. This evolution can best be followed in the account books of Francesco Datini, a fourteenth-century merchant, who started out with books kept by single entry, but who adopted the double-entry system at the end of his career. In the first account books, only a

few impersonal accounts are found, but they grow rapidly in number. After a few years, the account books contain, besides accounts for payables and receivables, capital accounts representing the money invested in the business and impersonal accounts for goods and expenses. Each entry refers to a counterpart in another account. The transition from single to double entry is thus accomplished by the gradual building-up of a cohesive system of accounts and the concentration in the ledger of formerly scattered material.

There are two other characteristics of medieval bookkeeping which I wish to stress. It has often been contended that financial statements of some sort or another were unknown in the Middle Ages. This is not entirely true. Most of such statements were written on loose sheets of paper and consequently have been lost. A few, however, have survived both in Italy and in other countries. These examples show that the practice of making up financial statements was more common than has been suspected hitherto.[8] In partnerships, of course, it was often indispensable to draw up some kind of a statement in order to apportion the profits to the different partners or to determine their equity in case of dissolution. Agents, too, were often required to send reports to their principals concerning their management. Some good examples are found in the Datini documents. The branches which Francisco Datini had founded in Spain and Southern France, were expected to send every year a copy of their inventory and later of their balance sheets to the headquarters in Prato (Italy). In 1400, the branch in Palma on the island of Majorca even added a profit and loss account to its balance sheet.[9]

There is, nevertheless, a fundamental difference between modern and medieval practice. In the Middle Ages financial statements were generally not drafted every year, but at irregular intervals, when, for instance, the ledger was full and a new one was started, or when a partnership was dissolved.

The second point which I want to discuss refers to the development of industrial accounting in medieval Italy. As early as the fourteenth century, the textile industry in Florence, Lucca, and other Italian cities, was already organized on a capitalistic basis. Of course, the factory system which we know today, did not yet exist. The industry was under the control of industrial entrepreneurs who owned the materials and gave them out to artisans working at home. This system is commonly called the putting-out or wholesale handicraft system.

Some of the books of Florentine clothiers have come down to us. The most remarkable group is the Selfridge Collection of Medici business records. This material shows that the Medici in their capacity as industrial entrepreneurs used a quite elaborate system of bookkeeping. Besides the usual books, they had several registers for their accounts with artisans: wool-washers, spinners, weavers, dyers, and cloth-finishers. These records did not constitute a cost-finding system, but were primarily intended to keep track of the raw materials and to provide a basis for the computation of the wages. I cannot emphasize strongly enough that this complicated system of accounting control was imposed upon the clothiers by the organization of their industry. It seems to have been so common that it has left traces in the gild regulations and is decribed in a contemporary treatise on the silk industry, which was organized along the same lines as the woolen industry.[10]

[8] R. de Roover, *op. cit.*, p. 192.

[9] Corsani, *op. cit.*, pp. 157 f. and appendix no. 7, pp. 175–178.

[10] Girolamo Gargiolli, ed., *L'Arte della seta in Firenze: trattato del secolo XV* (Florence, 1868), pp. 113–124.

Attempts to go beyond a mere control of the use of raw materials do appear, however, at an early date. In an account book of 1395, belonging to a cloth-manufacturing firm in which Francesco Datini was a partner, an effort was made to determine the cost of each bolt of cloth. Besides direct expenses, allowances are made to cover rent, costs of apprentices, and other indirect charges; the value of the residual material is also deducted. One of these cost records is reproduced here in a summarized and modernized form:

2 Bolts of Cloth made of Minorca Wool, Lot no. 8+[11]

Cost of Raw Material (wool)		£16.14. 3
Cost of Processing:		
Cleansing, carding, combing, etc.	£ 6. 8. 2	
Spinning	5. 6. 3	
Weaving	4.12. 1	
Finishing	11. 1. 0	
Dyeing	8. 5. 8	
Supplies	3. 8. 0	39. 1. 2
Allowance for Overhead:		
Rent, cost of apprentices, etc.	£2.10. 0	
Petty expenses	0.18. 0	3. 8. 0
		£59. 3. 5
Less:		
Value of residual material		− 0. 9. 0
Total cost		£58.14. 5

[11] Corsani, *op. cit.*, Appendix 3, pp. 163–165.

This sketch shows that the bookkeeping of the medieval merchants was entirely adequate for their purpose and attained a high degree of flexibility. The merchants sought to adapt it to the increasing requirements of business and succeeded fairly well by improving their modes of classification. Major steps in this direction were the adoption of the bilateral form, the use of more than one book and the addition of impersonal to the existing personal accounts. All these changes culminated finally in the adoption of the double-entry system of bookkeeping which brought with it a certain degree of simplification and constituted a self-controlling system.

The treatise of Paciolo dated 1494, in which the double-entry system is first described in print, is, it should be remembered, only a copy of a contemporary manuscript circulating in the schools of Venice. It is, therefore, a general work which does not give an accurate picture of actual practice as it entirely neglects, for instance, to discuss how industrial enterprises kept their books. In many ways, practice in the fifteenth century was far ahead of theory. Indeed, the more one delves in the past, the more modern the Middle Ages appear to be.

THE PRINCIPLES OF PUBLIC-UTILITY DEPRECIATION

Gabriel A. D. Preinreich

I have read Professor Perry Mason's monograph on the "Principles of Utility Depreciation"[1] with great interest and consider it as valuable a contribution to the literature of accountancy and public utility regulation as can be made by the traditional discursive method of presentation and by what is still essentially a "single machine" approach. Unfortunately, the subject is far too complex for these limitations. To give its students a bird's-eye view of the main problem unobscured by innumerable conflicting opinions, decision, rulings, etc., it is necessary to make, first of all, an introductory comparison of representative methods of depreciation, as applied to a composite plant consisting of many similar items of equipment which are continuously replaced.

[1] American Accounting Association. Chicago, 1937.

After demonstrating, how the "rate" chargeable to the consumer is determined by the method in various circumstances, it is in order to investigate the theoretical requirements, which the "true" method must fulfil. Finally, the enormous practical difficulties may be pointed out and compromises discussed.

Before beginning the exposition, it is also advisable to define the senses, in which the principal terms will be used. The "rate-base," in general, is evidently the "fair value, on which the utility is to earn its prescribed rate of return."[2] In a study limited to depreciation, all extraneous elements may be neglected, so that it is permissible, at least *ad interim*, to define the rate-base as the depreciated cost (book value) of the plant. The "rate," similarly limited in meaning, then becomes the sum of capital consumption and a fair return on the unconsumed plant investment, divided by the time-service units produced or rendered.

When comparing depreciation methods with each other without criticism, it is convenient to consider the entire annual output of the plant as one unit and to express the "rate" per centum of a suitable investment figure. For a discussion of static conditions, the original cost of the plant is most suitable; inquiry into dynamic changes, such as expansion and change in replacement costs, prompts the use of a figure which would have been the undepreciated cost of the equipment now in service, if replacement costs had always remained at their original level. When it becomes necessary to distinguish between various rate concepts, this rate will be called the "annual plant rate."

In addition to the terms defined, a name is needed for those assets which represent an accumulation of depreciation or capital consumption charges paid by the consumer in excess of plant replacements actually made. The designation "idle assets" seems appropriate, because they do not render any public service and consequently can not claim any remuneration from the consumer. That is the fundamental principle, which must be understood at the outset. Professor Mason does understand it,[3] but his examples and their discussion eventually confuse both the reader and himself on that point, as will be demonstrated later. Whenever idle assets are able to earn on the outside a rate of return equal to that due the plant investment, it is obviously immaterial, whether they are included in the rate-base or not, provided that their income is correspondingly considered or disregarded in the "rate" calculation. What should be emphasized is that ordinarily the idle assets earn only a lower rate of return. If they are nevertheless included in the rate-base, the consumer is improperly forced to contribute to the income of the capital which he has already repaid. That improper depreciation methods may have practically the same effect, is a matter which must be deferred until the theory of the true method is set forth.

I

Discursive methods supplemented by tabulations of debits and credits are quite inadequate for the purpose of showing how various depreciation methods determine the book value of the plant and the "rate" chargeable for its use. The problem involves lengthy mathematical calculations based upon the mortality theory of physical property.[3a] The results, however, can be presented simply and concisely in graphic form.

Without going into mathematical details, it may be said that the rate, at which

[2] *Ibid.*, p. 86.

[3] *Cf.* p. 88: "The investors are not entitled to a return on both the existing and the exhausted capital."

[3a] See my paper: "Annual Survey of Economic Theory: The Theory of Depreciation," *Econometrica*, July, 1938, pp. 219–241.

"machines" installed at the same time gradually drop out of service, ordinarily forms a frequency distribution of the Pearsonian type I. For the calculation of the graphs here presented, a simple curve of this type was used, which corresponds closely to that computed by Edwin B. Kurtz and found applicable to his group VII, comprising seventeen different kinds of industrial property out of a total of fifty-two examined by him.[4] In a theoretical discussion, almost any other bell-shaped frequency distribution serves equally well, since the general appearance of the resultant curves is very similar in all cases.

In Fig. 1 the original cost of the plant is represented by the 100% ordinate, while time is extended along the abscissa. Curve 5 is the basic frequency distribution, from which all curves of all four figures are derived. The reversed summation of the frequency distribution is the mortality curve (6). It shows, what proportion of the machines installed at the time zero is still in service on any subsequent date, up to the assumed maximal age of twenty years, when there will be none left. To maintain the original number of machines in service at all times, it is necessary to replace them at the rate indicated by the unbroken curve 7. It may be seen that the replacement curve gradually changes into a horizontal line, the ordinate of which is the reciprocal of the average life of all machines. In this case, the average life is eight years (vertical line 8), obtained by substituting a parallelogram of equal area for the area enclosed by the mortality curve and the coordinate axes.

The depreciation methods to be compared are: 1. the retirement method (here called a depreciation method purely for convenience of language); 2. the annuity method (equivalent to the sinking fund method, when only one rate of interest is used); 3. the straight line method and 4. the diminishing balance method. Four examples illustrate the behavior of these methods:

A. Static conditions. The number of machines in service remains constant. Replacement costs equal original costs.
B. The number of machines in service remains constant. Replacement costs increase at 2% per annum.[5]
C. The number of machines in service increases at 5% per annum.[5] Replacement costs equal original costs.
D. The number of machines increases at the rate of 5% per annum. Replacement costs increase at 2% per annum.[5]

In all four examples a scrap value of 10% of the purchase price is assumed. These examples still simplify actual conditions greatly, but they lead nevertheless to a number of important conclusions which may be read in an affirmative as well as a negative sense, depending upon whether the rates of change assumed are positive or negative.

Example A—Figs. 1 & 2—Unbroken lines applicable only

Under the retirement method the book value (1) of the plant always equals its original cost, since this method is based on the fallacious claim that a machine which serves as well as when it was new, can not be worth less than it cost. The three other methods recognize that value depends not only upon present service, but also upon the future period, during which it will be maintained.

The straight line method obtains the unexpired cost of the original machines at any chosen age by summing up the

[4] *Cf.: Life Expectancy of Physical Property.* Ronald Press Co. New York, 1930.

[5] All rates mentioned in this article are described for brevity as rates per annum, but it should be understood that the forces of annual rates are meant.

areas of both the mortality curve and the frequency distribution to the right of that age and adding 90% of the first summation to 10% of the second. The composite book value is then found by making the same calculation for each small block of replacements and adding the aggregate to the book value of the original machines. Repetition of the procedure for successive ages yields the composite book value curve 3.

The annuity method leading to curve 2 operates in the same manner, except that the value of both future services and scrap proceeds is simultaneously discounted; the rate used in the figure being 7% per annum.[5]

The diminishing balance method is a somewhat crude attempt to recognize a decline in the value of services, as a machine grows older. The procedure is again the same, except that it is based upon a mortality curve so transformed as to make the depreciation rate, applied to the composite book value curve 4, a constant. In the graph, the rate used is 28.78231% per annum.[5] It reduces the book value of a single machine from 100% of cost to 10% in eight years. This method may be of little importance in the public utility field, but is presented nevertheless, because it makes the picture more or less symmetrical. The book value level determined by it happens to be about as far below the straight-line level as the retirement level is above that of the annuity method. The levels, i.e. the axes around which the oscillations of the book value curves diminish rapidly in amplitude, are marked on the right-hand margin of Fig. 1.

Figure 2 shows the four rates of composite depreciation determined by the four methods, as well as the corresponding four "rates" chargeable to the consumer. All rates of composite depreciation are obtained by computing the slopes of the book value curves, reversing the signs and increasing the four results uniformly by 90% of the rate of replacements. The "rate" owed by the consumer is then found by adding a 7% return on the appropriate book value to each depreciation curve.

It may be seen at once that, under static conditions, any method of depreciation will eventually[6] result in the same charge to operations, viz. a charge at 90% of the rate of replacements. In the meantime, however, widely different levels of book value are established, so that the "rates" must correspondingly differ. Their ultimate levels are indicated in Fig. 2. It is particularly noteworthy that, under the annuity method, the "rate" is a horizontal line, i.e. it is altogether independent of the age of the plant. Under the straight line method, the depreciation is a horizontal line, but the "rate" is too high in the beginning and drops gradually a bit below the annuity "rate." These relationships are the only ones pointed out by Prof. Mason.[7] He holds, moreover that "to adjust the rates from time to time ... is untenable as a matter of practical administration, and there is no logical reason why rates charged for service should be lowered."[8] Thus, he takes it for granted that the "rate" commanded by the straight line method is always a horizontal line on the level from which "rate"-curve 3 starts in Fig. 2. This line is the axis toward which the "rate" of the retirement method gravitates. It combines the effect of straight line depreciation with that of an undepreciated rate-base.[8]

---

[6] The adverbs "eventually" or "ultimately" must be so often employed hereafter, that it is necessary to clarify them. Speaking mathematically with reference to the problems discussed, they often mean the infinitely distant future. Practically, the statements qualified by those adverbs are true either entirely or very substantially (i.e. beyond five decimals) after four or five average life periods have elapsed. In some cases they are true even before the end of the first such period.

[7] *Op. cit.*, pp. 66–67.

[8] *Ibid.*

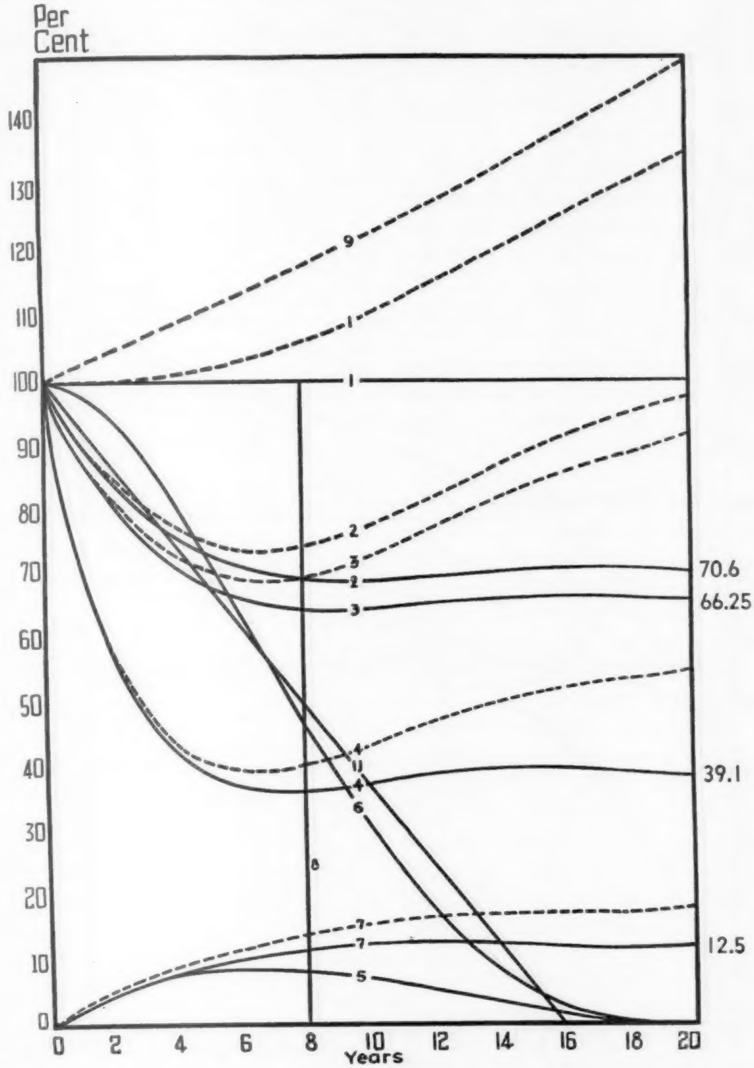


FIGURE 1.—Vertical scale represents per cent of cost of original plant. Smooth lines indicate static conditions. Broken lines include increase in replacement costs at the force of 2 per cent per annum.

Composite-book-value curves: (1) Retirement method; (2) Annuity method at the force of 7 per cent per annum; (3) Straight-line method; (4) Diminishing-balance method.

Auxiliary curves: (5) Basic frequency distribution; (6) Mortality curve; (7) Rate of replacements; (8) Average life = life expectancy of a new machine; (9) Index of replacement costs; (11) Limit of shape of possible other mortality curves. The opposite limit is (8).

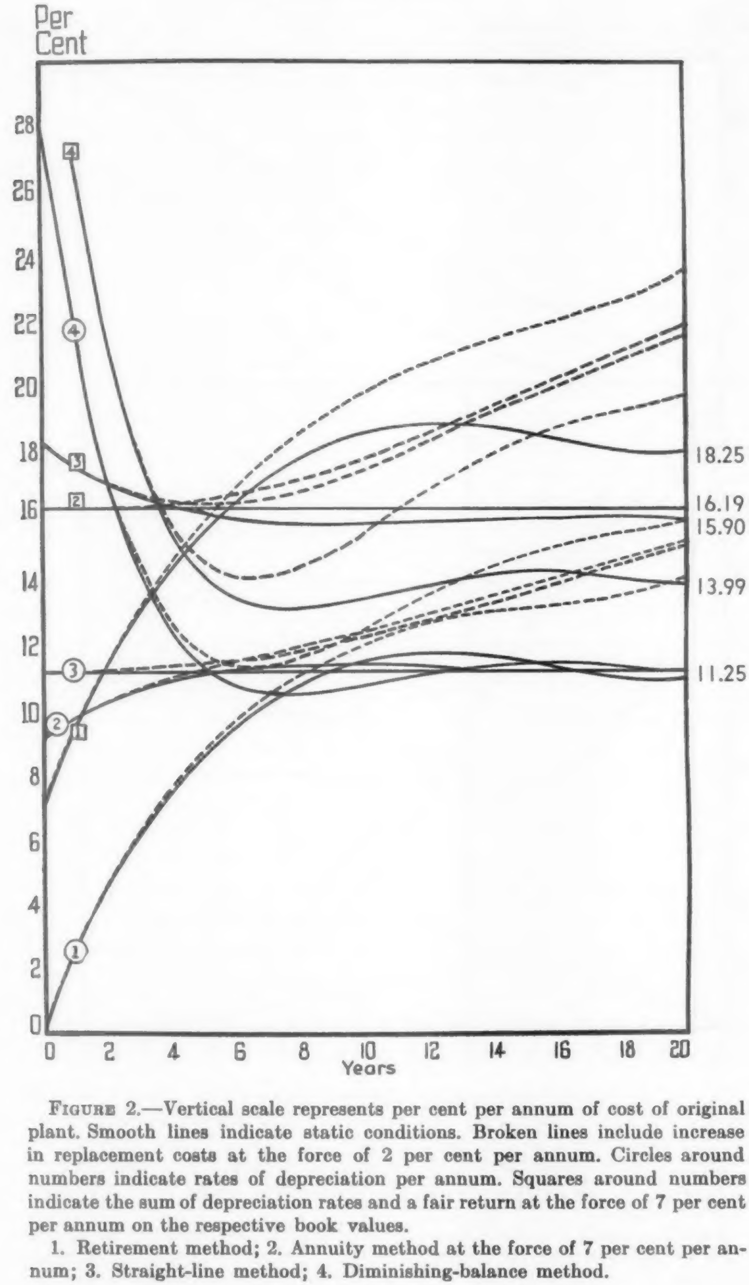


FIGURE 2.—Vertical scale represents per cent per annum of cost of original plant. Smooth lines indicate static conditions. Broken lines include increase in replacement costs at the force of 2 per cent per annum. Circles around numbers indicate rates of depreciation per annum. Squares around numbers indicate the sum of depreciation rates and a fair return at the force of 7 per cent per annum on the respective book values.

1. Retirement method; 2. Annuity method at the force of 7 per cent per annum; 3. Straight-line method; 4. Diminishing-balance method.

Example B—Figs. 1 & 2—Broken lines applicable only

The index number of replacement cost is shown as curve 9. The calculation of all four book value curves follows the procedure described for static conditions, except that the rate of replacement is first multiplied by the index. All curves obtain upward trends which ultimately reach equal proportions (2% p. a.), when measured in terms of the static levels. In amount, of course, the book value by the retirement method increases fastest and that by the diminishing balance method least rapidly. Depreciation charges must in the end differ in the opposite sense, because one method postpones them to a greater extent than another. This development is clearly disclosed by the depreciation curves of Fig. 2. They were obtained by taking the slopes of the book value curves, reversing the signs and increasing each result uniformly, not only by 90% of the rate of replacement (multiplied by the index), but also by the rate of growth of the scrap value.

When replacement costs increase, depreciation charges increase also, but the diminishing balance method leads the rise, while the retirement method brings up the rear. The straight line method's depreciation remains proportionately the same, i.e. it is the product of the unbroken horizontal line 3 of Fig. 2 by the dotted line 1 of Fig. 1.

The "rates" prevailing under increasing replacement cost are again found by adding each of four different conceptions of a fair profit to the respective measurements of capital consumption. Among the "rates," that of the annuity method remains proportionately unchanged; the others approach slightly toward it. An index increasing only at the rate of 2% per annum is not sufficient to wipe out entirely the ultimate differences, but it lessens the discrepancy existing under entirely static conditions.

Example C—Figs. 3 & 4—Unbroken lines applicable only

In Fig. 3 the 100% ordinate no longer represents the original cost of the plant, but the undepreciated cost of all the machines in service at any given time, when their number increases at 5% per annum and when replacement costs are static. The relationship between Figs. 1 and 3 is clarified by the 5% discount line (10) in Fig. 3. This line is equivalent to the horizontal 100% line of Fig. 1. It shows the original cost of the plant for comparative purposes.

Calculations of the four book value curves are now made for the third time along the lines first indicated, except that the rate of replacements and additions, which must now be used (curve 7 of Fig. 3), differs materially from the corresponding rate (7) plotted in Fig. 1. Instead of starting at the origin, it starts with an ordinate of 5% and increases rapidly in terms of the scale prevailing at the time zero. In Fig. 3 the real rate has been discounted, i.e. multiplied by line 10 and thus shows an ultimately horizontal trend on a level of 15.8% which is lower than the sum of 5% expansion and the level of 12.5% reached by curve 7 in Fig. 1.

The book value curves of Fig. 3 similarly represent the real ascending curves discounted at the expansion rate. By this device they have been made comparable to the book value curves of Fig. 1 in terms of the respective undepreciated costs prevailing when replacement costs are static. It is apparent that, under any method but the retirement method, the book value of an expanding plant stabilizes itself at a higher proportion of its undepreciated cost than the book value of a static plant. This must be so, because an expanding

plant contains a greater proportion of relatively new machines. The average age is less and the average service-expectancy is correspondingly greater. That the amplitudes of oscillations are smaller is a secondary, but still interesting phenomenon. Its cause is the greater influx of new machines, which offers a wider scope for the automatic stabilizing process from the very start.

The depreciation curves of Fig. 4 were calculated by finding first the true slopes of the book value curves, viz. the slopes before applying the discount indicated by line 10. After reversing the signs, 90% of the true (undiscounted) rate of replacements and additions was added along with the rate of growth of the scrap value. The result was discounted and plotted. To obtain the "rates," a 7% return on the true book values was also added before discounting.

It must be clearly understood that discounting at the rate of expansion is merely a plotting device adopted for the purpose of reducing Figs. 2 and 4 to a common denominator. While the respective vertical scales of Figs. 1 and 3 measure different concepts which merge only at the time zero, those of Figs. 2 and 4 mean the same thing at any point of the horizontal time-scale. They measure sums of money due per annum for the use and gradual repayment of each dollar originally invested in the plant, or of such a larger sum which subsequently replaced or matched that dollar in rendering equal service.

Figure 4 shows that expansion causes an eventual discrepancy in the trends of depreciation rates, which occurs in the same sense as that caused by an increase in replacement costs in Fig. 2. The charge decreases materially for the retirement method, and slightly for the annuity method. For the straight line method it remains unchanged and for the diminishing balance method it increases a good deal as compared to the curves of example A.

Among the four "rates," that of the annuity method remains unchanged, while the others are much closer to it than under static conditions. It can easily be shown mathematically that, when all other conditions are as assumed, but the rate of expansion exceeds 6.00%, the four rate levels will ultimately be reversed in order. In other words, a public utility expanding faster could claim the highest "rate" under the diminishing balance method and only the lowest under the retirement method. It is interesting to note that one of the few public utilities adhering to the straight line method of depreciation, the American Telephone & Telegraph Co., has in the past had an average expansion rate in excess of 9% per annum. It is thus probably better off than if it had insisted upon the use of the retirement method, as many utilities in the same position still do.

Example D—Figs. 3 & 4—Broken lines applicable only

A 2% annual increase in replacement costs is now combined with 5% annual expansion. In the recalculation of book values, the rate of replacements and additions must again be multiplied by the index number of replacement costs. After applying the expansion discount for plotting purposes only, the resultant curves look very similar to those of Fig. 1, except that they begin their rise faster in proportion to levels which are higher. (N.B. The difference between the ordinates of curves 9 and 1 is less throughout Fig. 3 than in Fig. 1.) The discrepancy of depreciation rates is greater than in any of the three preceding examples. When a 7% return on the book values is now added to the respective rates of depreciation, it so happens that all four methods call for

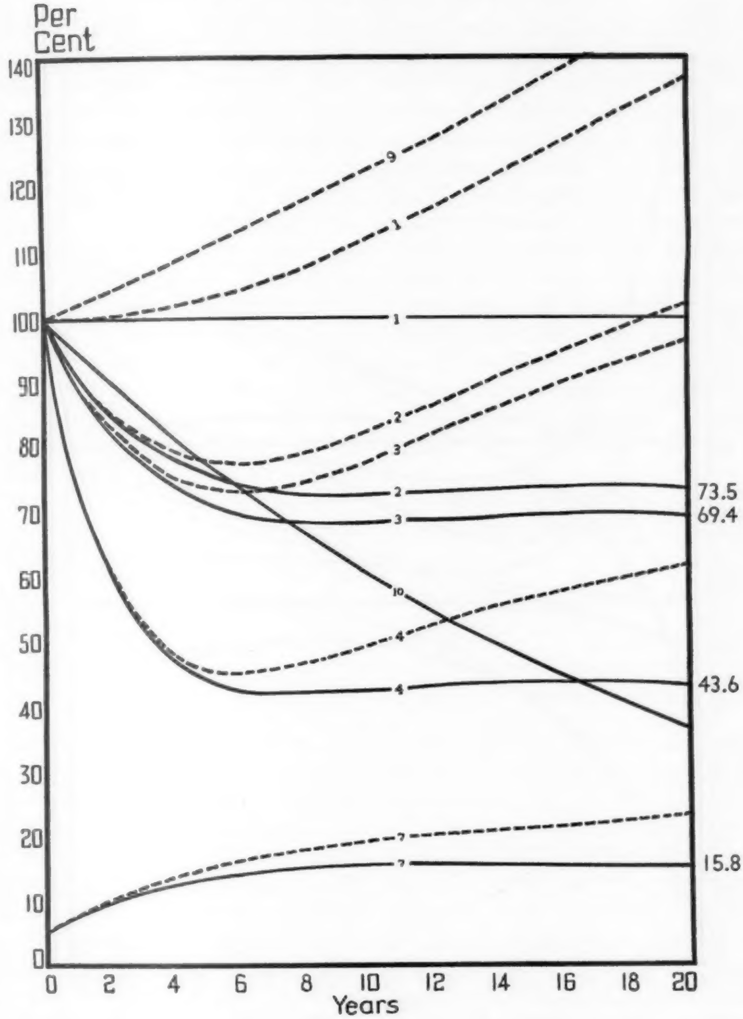


FIGURE 3.—Vertical scale represents per cent of cost of plant in service at any time *t*, when number of machines expands at the force of 5 per cent per annum and when replacement costs remain at the level of original costs. Smooth lines indicate static replacement costs and plant expansion at the force of 5 per cent per annum. Broken lines include increase in replacement costs at the force of 2 per cent per annum.

Composite-book-value curves: (1) Retirement method; (2) Annuity method at the force of 7 per cent per annum; (3) Straight-line method; (4) Diminishing-balance method.

Auxiliary curves: (7) Rate of replacements and additions; (9) Combined index of expansion and replacement costs; (10) Original cost of plant. True ordinates of all curves have been discounted at the force of 5 per cent per annum before plotting.

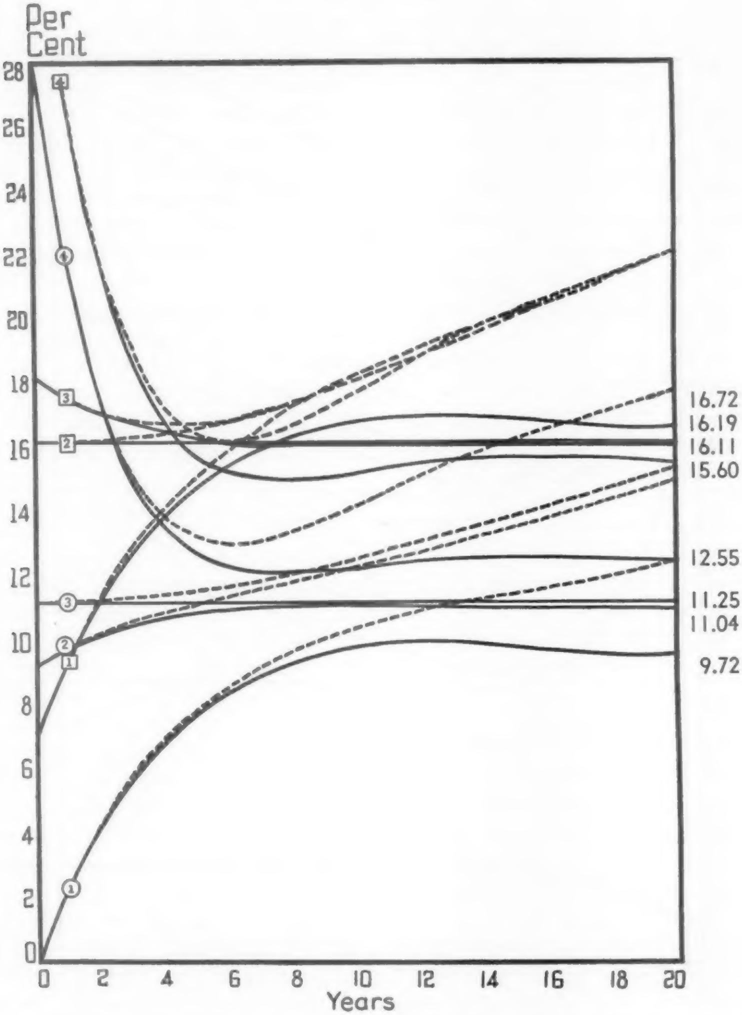


FIGURE 4.—Vertical scale represents per cent per annum of cost of original plant, chargeable at any time *t* per the original number of machines. Smooth lines indicate static replacement costs and plant expansion at the force of 5 per cent per annum. Broken lines include increase in replacement costs at the force of 2 per cent per annum. Circles around numbers indicate depreciation rates per annum. Squares around numbers indicate the sum of depreciation rates and a fair return at the force of 7 per cent per annum on the respective book values.

1. Retirement method; 2. Annuity method at the force of 7 per cent per annum; 3. Straight-line method; 4. Diminishing-balance method.

almost exactly the same ultimate "rate." That is purely an accident resulting from the assumptions. It shows, however, that if either the rate of expansion or the rate of increase in replacement cost had been chosen higher, the retirement method would have found its "rate" at the bottom, while that of the diminishing balance method would have been on top. The other two methods would have changed their respective positions simultaneously.

It does not seem necessary to add a fifth example to cover the case, where the pertinent portion of the rate-base is defined as the depreciated present reproduction cost of the plant, instead of as the depreciated historical cost. Undistorted graphs of this situation can easily be drawn by discarding all broken lines in all graphs and multiplying all unbroken lines by the index of reproduction costs (9). When this is done, "rates" will result, which may be described either as the sum of depreciation charges based upon present reproduction cost plus a 7% return on the rate-base, or as the sum of depreciation charges based upon reproduction cost at the time zero, plus a 9% return on the rate-base.

The analysis presented up to this point refutes Prof. Mason's oft repeated statement that "there is no fundamental relationship between depreciation and replacements."[9] No matter what the depreciation method may be, the replacement rate always enters directly into the depreciation rate, unless the discussion is carried on in terms of a single machine only. It is quite true, however, that "the problem of providing funds to finance replacements should be treated as quite distinct from that of handling depreciation."[10] It is possible that the first statement is also meant only in this sense.

The financial problem of providing for replacement leads to many opinions on idle assets, which deserve clarification. The relevant parts of four balance sheets, say for the end of the sixth year and for the straight line method, can be readily taken from the plotting calculations of Figs. 1 and 3 as follows:

	Example A	*Example B*	*Example C*	*Example D*
Idle Assets	$ 33.444	$ 31.063	$ 5.654	$ 996
Plant	100.000	102.872	134.986	140.408
	$133.444	$133.935	$140.640	$141.404
Depreciation Reserve	$ 33.444	$ 33.935	$ 40.640	$ 41.404
Equity	100.000	100.000	100.000	100.000
	$133.444	$133.935	$140.640	$141.404

In example A, the idle assets will always be offset exactly by the depreciation reserve, but Fig. 1 shows that practically none of these assets will ever be needed. A utility in substantially this position will accordingly engage in the investment business, while claiming simultaneously under single-machine ideology that "if it is realized that each item of property has its claim on the accumulation, then . . . no part of the reserve can be useless—every cent will eventually be required."[11] The trust fund doctrine, the risk of obtaining funds when perhaps needed, etc., are advanced for the purpose of securing the inclusion of the idle assets into the rate-base as a necessary replacement or sinking fund.

Whether these arguments are accepted

[9] *Op. cit.*, pp. 19–20.

[10] *Ibid.*, p. 69.

[11] *Op. cit.*, p. 76.

or rejected by the regulatory bodies, it will also be maintained that "the reserve created under the more complete method [than the retirement method] is largely useless in that it gives the utility control over more funds than it needs to take care of the situation."[12] The fault lies partly with corporation laws, which prevent the return of unnecessary capital. The correct principle appears to be the one which I have elsewhere called the "principle of good management," according to which the corporate directors must neither retain idle funds, nor distribute any which can be productively reinvested.[13] It should be pointed out nevertheless that, under conditions of moderate expansion and a moderate increase in replacement costs, a public utility permitted to use the retirement method will in the long run get control over more funds than if it were not so favored. It does not complain, however, because it is free to distribute the excess in cash dividends, without sacrificing any part of its higher earning power.

Both the graphs and the above comparative balance sheets show that the importance of the idle asset problem diminishes with expansion and increased reproduction costs. None the less, a careful definition of "replacement funds" and "sinking funds" is needed, before subscribing to Prof. Mason's conclusion that "the fund is a necessary part of the property of the utility and should not be excluded from the rate-base; it may be considered as part of the 'working capital'. "[14] He recognizes that "the amount of the fund need not and should not be as large as the reserve for depreciation as long as there is enough variety in the property,"[15] but that is not definite enough. In examples B, C and D the fund must always be smaller than the depreciation reserve, but it is idle nevertheless, until it disappears altogether. The limit up to which any replacement fund or sinking fund might reasonably be considered a rate-base asset is given by the oscillating discrepancies observed in practice between the theoretical and the actual rates of replacement. A good indication of the size of such fluctuations can be gained from the books of utilities adhering to the retirement method. Their reserves for such a purpose rarely exceed one per cent of the plant account.

II

Toward solution of the problem of how to find the "true" method of depreciation, Prof. Mason contributes nothing beyond a recommendation that the subject be studied. That is probably the greatest shortcoming of his work, because the public-utility field is the only one which offers a chance, be it ever so small, for the practical application of the true depreciation theory. No justice can possibly be done to this subject without the extensive use of mathematics and therefore I shall here attempt merely to outline the general trend of the argument.

The starting point is the economic theory of capital value. It is well established that the capital value of any investment is the sum of the discounted values of all future services expected from it, including in this sense the ultimate proceeds of liquidation. Thirteen years ago, Prof. Harold Hotelling started out

[12] *Ibid.*

[13] *Cf.* my book: *The Nature of Dividends*. New York, 1935, pp. 9–10 and 175 f. Not to distribute reinvestable funds may mean in practice either no distribution at all, or stock dividends, or a combination of cash dividends and subscription rights.

[14] *Op. cit.*, p. 81. The next sentence, that "a larger income must be permitted on the main operating property in order to compensate for the deficiency of earnings of this part of the invested capital," is apparently intended as mere corroboration because even from Prof. Mason's viewpoint, the argument could be advanced only if the fund were excluded from the rate-base. If it is included anyway, one of the two wrongs which supposedly make a right is canceled.

[15] *Ibid.*, p. 80.

on this basis and made some genuine contributions to the subject.[16] Their value, however, is somewhat impaired by the unfortunate assumption that the capital value of a new machine is its cost. If that were true, no one would wish to struggle with the many alphabetical and other handicaps of business enterprise, so long as safe bonds are available. The connection between the capital value and the cost of a new machine is by no means a direct one. The market price oscillates around a balancing point determined marginally by the least efficient pair of producers and consumers of such machines. In the general case, the capital value is therefore apt to be higher than the cost, although, in the course of constant fluctuation, the reverse is not impossible. Be that as it may in a special case, it follows immediately that the transition from the capital value to the book value of a single machine can be achieved by using the same formula of capital value, but substituting the rate of profit for the rate of interest used in the discounting process. Regrettably enough, it also follows that the true book value (unexpired cost) on any subsequent date can be calculated only if the rate of profit is known in advance, at least in terms of a known function containing an unknown parameter.[17] The public utility industry comes closer to meeting this requirement than the field of unregulated enterprise.

To continue the discussion in the simplest terms, I must assume contrary to fact, that the rate of profit equals the prescribed rate of fair return. The elements entering into the net service may be analyzed next. For this purpose, the previous limited definition of "rate" must be discarded and a more comprehensive definition adopted. For a single machine the "true rate" is that constant price per unit of service charged to the consumer which, when multiplied by the rate of production and after deduction of all operating expenses, will produce the fair net rental or service. The fair net rental, in turn, is that flow of service which, when inserted into the book value formula applicable to the time zero (i.e. the capital value formula with profit substituted for interest and zero substituted for the variable time-symbol), will result in original cost less the discounted scrap value.

It should be of particular interest to accountants that the term "operating expenses" includes every business expense except depreciation. None may be omitted, except those which vary in exactly the same manner as the rate of production. If there are any which fulfil that requirement, they may be eliminated against the sales, which is the product of the "true rate" by the rate of production. The depreciation calculation will remain correct; the "rate" so obtained will, however, fall short of the "true rate" by the pro-rata shares of all expenses eliminated. These can be readily added to the answer. When both the rate of production and all expenses are considered constant and equal for all machinery, the elimination can be carried to the limit and the annuity method results. If, in addition, a whole year's output is considered as a unit of service, the resultant "rate" is the annual plant

[16] "A General Mathematical Theory of Depreciation," *Journal of the American Statistical Association*, September, 1925.

[17] When the profit function is unknown, the edifice of theory must be erected on the highly artificial foundation of perfect foresight extending up to the death of the enterprise, thus assuming as known all the total production surpluses of each successive machine in the long chain of replacements. Even then, however, the problem is indefinite, because the distribution of each surplus over the life of the respective machine remains optional. A continuous rate-of-profit curve fitted to the successive blocks of production surpluses is the general answer, which permits of different solutions.

Any depreciation method ever devised amounts merely to a conscious or unconscious assumption of the form of the rate-of-profit curve. Prof. Hotelling's assumption happens to be that costs move parallel to sales and is therefore anything but a "general" theory.

For the mathematical demonstration see *op. cit.* in note 3a.

rate $\boxed{2}$ of figs. 2 and 4. In addition, the consumer must be charged with his pro-rata share of all expenses.[18]

The next point to be introduced is the value-theory of discarding. Prof. Hotelling[19] derives it from the formula of capital value by showing that the investment will be best conserved, if the machine is discarded at the moment when it barely earns the rate of interest on its scrap value. That is true enough for a single machine which is not to be replaced. When considering a chain of replacements extending into the dim future, the value of the whole chain or what is left of it must be made a maximum, not the value of a single machine. When the rate of profit is unknown, that immediately leads to speculative comparisons between the machine now in service and those which will be on the market at the time when the question of replacement becomes acute. Since, however, I have assumed that the profit actually equals the fair return, the answer is simple: the machine must be discarded and replaced, when it barely earns the rate of profit on its scrap value.

The value-theory of discarding is based upon the assumption that a machine is certain to last longer than it can be operated profitably, i.e. that at least some expenses directly connected with its operation will gradually rise to prohibitive levels. That need not always be the case. It is conceivable that a machine may be profitable until the moment when it suddenly falls to pieces, like the late Justice Holmes' famous "one-hoss shay." Practically speaking, expenses may remain almost constant for a long time and then begin to rise so rapidly as to make it clear that the end has come. In such cases discarding has a physical, rather than a value aspect, and the future date of scrapping ought to be known from experience.

Disregarding the latter eventuality as the simpler one, there are in the general case three equations, viz.: 1. the book value formula applicable to the time zero; 2. the same formula for any time between zero and the date of discarding; and 3. the equation which defines the fair return on the scrap value in terms of the sales at the time of discarding, less the rates of all expenses as of the same date. The three unknowns are the book value at any time other than zero, the "true rate" and the date of scrapping. Equation 2 contains all three unknowns, while equations 1 and 3 contain only the last two. These equations can be solved simultaneously as outlined by Prof. Hotelling,[20] bearing always in mind that the fair return must be used in lieu of the rate of interest employed by him. Otherwise all three answers will be wrong.[21]

For purposes of the solution, perfect foresight is necessary up to the end of the machine's life, as far as the rate of production and all expenses are concerned. An analysis of the latter may accordingly be

[18] I am still neglecting items extraneous to the discussion, such as a fair return on rate-base assets other than the plant, modifications caused by senior capital, etc. In this sense, the "true rate" is not yet the true one, nor can its product by the rate of production be described as sales. When all these complications are considered, it will follow that the utility is entitled to the fair return only on that part of the common equity, which is invested in rate-base assets. To the extent that the investment is furnished by senior capital, the rate-base may claim merely a return equalling the hire of such capital. The "prudent investment" concept thus leads to the definition of the rate-base in terms of equities rather than assets. It logically extends the field of regulation to the entire capital structure and the proportions, which its component elements ought to bear to each other.

[19] *Op. cit.*

[20] *Op. cit.*, p. 347.

[21] When Prof. Hotelling's book value formula is used for keeping the books of a machine which earns more than the rate of interest, it further follows that the books so kept will report an enormous profit per centum of the scrap value, at the very moment, when the machine is discarded for the reason that it earns barely the rate of interest. That is to say, his assumption of the form of the rate-of-profit curve is inconsistent with the data which determine the moment of scrapping. *Cf.* note 17 above.

made to an almost unlimited extent. All will depend upon outside influences too numerous to mention; some in addition upon the rate of production which, in turn, depends upon the general economic situation as well as special developments. Taxes and insurance, finally, might possibly be considered to depend upon the book value to be found. Whenever the dependence is linear, insurance and taxes may be crossed off the list of expenses deductible from sales, their rates on the book value being added instead to the fair return used in the discounting process. A more complicated relationship creates difficulties which are not always surmountable.

Prof. Hotelling's theory ends at this point. With the amendments suggested, it becomes acceptable for public utility purposes as far as single-machine analysis goes. Next, the findings must be made applicable to a large number of machines installed at the same time, i.e. to the original plant. Curve 6 of Fig. 1 shows that every machine drops out of service at a different time. If it be assumed that the mortality curve was obtained by value-analyses of many machines, or at least that sporadic value-analyses have tended to confirm the results of physical inspection, it follows that certain expenses and probably also the rate of production must differ widely from machine to machine. The functions expressing these elements of calculation accordingly contain another variable, namely the life of the machines (date of scrapping), which varies from zero to twenty years in Fig. 1. This variable may be expressed as the reversed mortality formula, meaning that the equation is so changed as to state abscissae corresponding to given ordinates, rather than ordinates corresponding to given abscissae.

The "true rate" is also different for each machine and becomes a function of the variable life instead of a constant. If the book value formula of a single machine is so amended and then summed up with respect to the ordinate within the limits corresponding to successive positions on the horizontal time-scale, the book value curve of all original machines still in service at any time is found. The remainder of the work is as indicated in section I. Each small block of replacements must be treated in the same way as the original plant. A final summation leads to the composite book value curve. It will look very like those shown in the graphs, but will converge toward some other level depending upon the known functions of production and expenses. From it, both depreciation and annual plant rate curves can be derived as explained in the examples.

The "true rate," or price per unit of service as defined in this section, but averaged for the whole composite plant, is now obtainable by taking the "true rate" of the original plant at successive given times and adding to it those of each block of replacements as of the same times. In the case of static replacement costs, the "true rate" will not be a horizontal line, but will tend to be too high in the beginning, until stabilization occurs on a lower level. Prof. Mason's complaint that "a utility using much old property would have to charge different rates than one using much new property even though the service rendered by each was precisely the same"[22] can not be remedied in the general case. During the early years, that situation must arise, until the proportion of relatively inefficient machines, is reduced to the stable average.

III

The pure theory of depreciation can be readily developed in terms of mathematical symbols to a far greater extent than I

[22] *Op. cit.*, p. 58.

have here attempted. It must be realized, however, that the final step of substituting known functions for the symbols theoretically treated as known involves a lot of guesswork. Production and expenses can never be foretold accurately for a long time in advance. And if the guesses are wrong, the profit will differ from the fair return. The whole calculation is then upset, even if the promulgated "rate" had conformed exactly to the guesses.

If the fair return were both fixed and guaranteed, delayed adjustment by hindsight could be introduced. A consumers' surplus (deficit) account might in that case be opened, to which all differences between the fair return and the actual profit would be posted and the balance considered an asset or a liability, as the case might be. In addition, voluminous operating records would be necessary for individual machines. Upon discarding each, its real past book value curve could be computed and compared with the method used in keeping the books during the same period. The resultant entries to the consumers' surplus would cluster into frequency distributions and would indicate the direction in which the bookkeeping method has erred.

Except for the transition period of the early years, the composite book value is mainly a matter of levels. A flexible formula could therefore be used, in which only the value of a single symbol need be changed from time to time to create a trend toward any desired level per centum of the undepreciated cost. Now, theory requires that the formula of the composite book value under the straight line method be merely a special case of the annuity method's formula. The only difference between them is the discount rate, which is zero in the former and more than zero in the latter. This rate could be given any positive or negative magnitude and could serve as a "micrometer screw," to be turned slightly in one direction or another, until the adjustments calculated by hindsight become as small in aggregate as possible. That would make the regulation of depreciation policies a simple matter. As for the "rate," only the balance of the consumers' surplus and its trend of change would have to be watched to gain the necessary guidance for corrective measures. This balance would, of course, always lag in time behind the true, but unknown balance.

To avoid guaranteeing a fair return and to conform to court decisions holding that past depreciation errors can not affect future "rates," the consumers' surplus might be classified as part of the common equity, serving no other purpose than that of a gauge. That would be theoretically less acceptable, but practically more feasible.

Quite probably, complete value analysis would entail so much added expense as to suggest giving the utility the benefit of the doubt instead. At least tests ought to be made, however. By a scientific sampling process the significant errors could be caught. The point is that different life and service characteristics of different types of machines lead to different book value levels for any method except the retirement method. A level correct for one plant or industry might be grossly improper for another.

If all reforms be rejected, there remains only to speculate, which of the simple standard methods has the best chance of being closest to the truth in the majority of cases. Prof. Mason says in his "defense of the straight line method" that because repairs and maintenance almost always increase as the property becomes older, "the straight line method is not likely to result in an excessive return on the investment for any great length of time."[23] That sounds all right, until one realizes

[23] *Op. cit.*, p. 68.

that he is really defending the exorbitant rate described at the end of example A above.

The gradual increase of maintenance charges, etc., can not convert an otherwise excessive "rate" into a fair one, except during the first few years of the utility's existence. In the long run the effect is just the opposite, both under the static conditions to which Prof. Mason's attention is limited and under the moderately dynamic ones of examples B and C. What happens is that the tendency of services to decline in value with growing age calls for a lower ultimate book value level than would otherwise be proper. This boosts the "rate" for a few years, while the book value is dropping, because the slope of the big initial drop is steeper.[24] Thereafter, a lower level commands a lower "rate," unless conditions are relatively more extreme than in example D.

Similarly, the excessive "rate" granted to the straight line method can not be compared with the lower, but correctly calculated annuity "rate" for the purpose of concluding that "the compound interest methods are almost certain to give a deficient yield on the investment, when the plan is well under way."[25] All other things being equal and when the plan is well under way, the annuity method will lead to an excessive, not a deficient yield, when the straight line method leads to the correct one. The reverse can be true only in conditions which Prof. Mason did not examine, viz. when the expansion rate or the rate of increase in replacement costs or both are rather high. A careful study of the graphs submitted will go a long way toward clarifying these involved relationships.

In general, it can only be said that, apart from differences in depreciation methods, the book value levels will be high when:

1. Mortality curves resemble closely the diagonal straight line 11 in Fig. 1.
2. Net rentals decrease only slowly with growing age. If they should increase instead, so much the better.
3. Scrap values are high.
4. Expansion rates are high.

The reverse will lead to low levels. In the case of mortality curves, the opposite extreme of shape is the vertical line 8 in Fig. 1. Steady changes in replacement costs will change levels only proportionately in the long run. Higher book value levels make higher rates and vice versa, until the combined critical rate of dynamic changes is exceeded. Thereafter the opposite is true.

In conclusion, it may be worth calling attention to the relationship between the average life of the plant and the annual plant rate. If the meaning of a unit on the horizontal time-scale is changed from one year to 7/6 of a year, Figs. 2 and 4 will tell, what rates must be paid per such unit of time for the use of a plant having an average life of $9\frac{1}{3}$ years, to yield 6% per annum on the rate-base, when: A. conditions are static; B. replacement costs increase at 1.714% p. a. C. the plant expands at 4.286% p. a.; and D. when both B and C are combined. Calculation of the *annual* plant rate for a 7% yield and for examples so changed is now a matter of simple arithmetic for all methods illustrated, except the annuity method.

The whole subject is so extremely complex and fascinating that it is difficult to know where to stop. All I set out to do was merely to show that purely literary efforts have very little chance of probing beneath the surface. That is by no means a reflection on Prof. Mason's achievement; he is in far too illustrious and numerous company for that.

[24] *Cf.* the technique of calculating depreciation in the examples.
[25] *Op. cit.*, p. 68.

ACCOUNTING FOR STOCK DIVIDENDS RECEIVED

Harry D. Kerrigan

In considering the effect of a stock dividend upon its recipient it is first necessary to inquire into the fundamental meaning of the terms "income" and "capital," and the distinctions, if any, between income to the corporation and income to stockholders. With a working understanding of these matters in mind, it will then be possible to discuss the nature of stock dividends from the recipient's standpoint.

Discussion of economic matters is frequently confused by a failure to distinguish between interpretations of a particular phenomenon in business practice and the underlying facts and principles of the phenomenon as interpreted by economists. The difference lies in the theoretical level at which underlying facts and principles necessarily are kept in the economist's analysis. The theoretical level is used because the assumptions upon which the reasoning rests may not obtain to the degree required for its validation on the practical level. And the economist's assumptions fall short of conformity to reality because they are virtually impossible of full verification.

This is another way of saying that on the level of business practice, a particular phenomenon is treated as expedience appears to suggest. But what is generally approved by the business community as "expedient" is often merely a satisfactory solution for immediate purposes of particular individuals. Because of this, a solution expedient for the moment may at some later time prove inexpedient according as immediate dictates of a given time and place change. Such changing expedients, however, are not accidental occurrences, but, rather, current manifestations of the same body of underlying facts and principles which have developed in the past and which project themselves into the future.

It therefore appears desirable to note briefly, at the start of the present chapter, the connection between concepts of income and capital as used by business men in their daily activities and the fundamental facts and principles underlying these concepts as developed by economists. It is not to be inferred from this that the underlying theory of income and capital is a settled subject on which there is unanimity of opinion among economists. On the contrary, the theory of the subject is still in dispute, as will be seen shortly. The unsettled state of the theory is however no bar to the comparison here urged between theory and practice. Abstractions on a given subject, even though there are admittedly several of them in existence espoused by different persons, still "are the true weapons with which to control our thought of concrete facts." Whitehead, A. N., *Science and the Modern World* (1925), p. 48. Substantially, the same thought was expressed by Goethe in the following words: "Das Hochste ware, zu begreifen, dass alles Faktische schon theorie ist." Quoted in Morgenstern, O., *The Limits of Economics* (1937), p. 6.

INCOME DEFINED

Income consists of commodities and services capable of gratifying human wants.[1] While this concept is an adequate

---

[1] As a matter of fundamental abstraction, the concept of income should be carried one step further back and identified with the satisfaction derived from commodities and services. The expressions quoted below are from modern economic treatises:

"... it is .. necessary to distinguish between ... goods and satisfactions derived from them. The benefits or pleasurable sensations ... [derived from goods] ... are psychic reactions. ..." Deibler, F. S., *Principles of Economics* (1936), p. 73.

"... in the final analysis, all incomes are psychic incomes, the experience of human wants gratified."

explanation of what real income consists of, it can serve only as a background for a more practical concept. The numerous problems to which the income concept is applied both in theory and practice require knowledge not only as to what income consists of, but also as to how it may be practically measured. Both for theorist and layman, economic thinking is clarified if the flow of real income in the form of heterogeneous items of commodities and services is expressed in terms of a common unit. "Money" has generally been accepted as such a satisfactory unit of measure, so that commodities and services are conventionally expressed in terms of their estimated exchange value in money. Accordingly, income is commonly regarded as the receipt of money value. This is the sense in which the term income will be used in subsequent discussion. The reference here is not to gross receipts of money value but to receipt of money value over and above expense of acquisition. Thus, *gain* is an essential connotation of income. It must be remembered that money income is simply a quantitative expression of real income in the form of commodities and services.[2]

From the foregoing statement it is apparent that income is the (net) receipt of money value giving command over commodities and services, independent of the disposition made of the income. In other words, the coming-in of the (net) money receipts is deemed the occasion for income recognition and measurement, not the going-out. Disposition may be made in either of two directions, (1) spending on acquisition of commodities and services for consumption, or (2) saving through investment. Saving is the act of refraining from applying income received for consumption purposes, the saved portion of the income constituting purchasing power available for acquisition of rights to future income.

The use of receipt of money income as the appropriate occasion for income recognition admittedly falls short of income realization in the sense of obtaining commodities and services that gratify human wants. This expedience of actual practice is, however, a satisfactory approximation as it is the nearest thing to the receipt of the commodities and services themselves. Attention is directed to the necessity of realization by income claimant even though it is in the limited sense of the

---

Davenport, H. J., *The Economics of Enterprise* (1919), p. 1.

"... fundamentally income is a flow of satisfactions, of intangible, psychological experiences." Haig, R. M., *The Concept of Income, Federal Income Tax*, Columbia University Press (1921), pp. 1, 2.

"In the final analysis, the income of an individual, or of a community, consists of the sum of utilities steadily accruing from its share of goods and services." Taussig, F. W., *Principles of Economics* (1921), Vol. I, p. 130.

"We desire things at bottom because of their utility. They can impart this utility only in the shape of a succession of pleasurable sensations. Income ... is the inflow of satisfactions from economic goods." Seligman, E. R. A., *Principles of Economics* (1921), p. 16.

The foregoing refinement need not be elaborated upon here. However well the concept may explain that income in terms of its ultimate significance is psychic in nature, there are a number of well-founded reasons against the use of this concept both in economic theory and in the more realistic atmosphere of economic action (such as taxation). (1) Most important reason is that the objective measurement of a person's psychic income would be next to impossible to measure. Economists generally realize this difficulty. As stated by F. W. Taussig, "For almost all purposes of economic study it is best to content ourselves with a statement, and an attempt at measurement, in terms not of utility but of money or real ... [i.e., commodity or service] ... income." *Op. cit.*, p. 130. R. M. Haig states substantially the same thought and adds "It will be observed that this definition departs in only one important respect from the fundamental economic conception of income as a flow of satisfactions. It defines income in terms of power to satisfy economic wants rather than in terms of satisfactions themselves." *Op. cit.*, pp. 1, 7. (2) The psychic concept does not conform to the generic meaning of the term income as something coming into the possession of a person—a meaning well intrenched in common usage of the term income. (3) The thought behind the psychic concept of income, namely, as a flow of psychic benefits, can be retained as a fundamental abstraction without formulating it into a theory of income as a part of economics.

[2] An individual's real income will fluctuate with changes in the value of money. This is because the ability of an individual to command goods and services depends upon the volume of these which his money will buy.

receipt of money value.[3] The realization criterion is discussed further in a subsequent section.

CAPITAL DEFINED

The portion of money income that is saved furnishes the saver with purchasing power which may be expended on instruments of production. These instruments of production constitute "capital" and represent the source of future income to their owner. In this study the term capital is used to include all forms of wealth, in existence at a point of time, that play a part in production.[4]

Income and capital are seen as two separate categories, despite the close relation between the two. As against the income which is an inflow, a coming-in, is the capital, which constitutes the income source. Capital consists of a stock of wealth of all kinds employed as instruments of production, in existence at a point of time; while income is the yield of capital—a flow of wealth through a period of time. Since capital is commonly given a monetary expression, it may be conceived as a financial fund, with income therefrom also expressed in terms of money.

CAPITAL *VS.* PROPERTY RIGHTS IN CAPITAL

That there is a distinction between a right to capital and the capital to which the right attaches is apparent. Both are stated in terms of money, but one refers to things while the other refers to rights in things. A distinction is also necessary between ownership of capital and other forms of property rights in capital. Both types of interests are claims on capital, but the claims differ from each other. One ground for difference has an extremely practical bearing upon the question of when income realization takes place for an individual who holds property rights in capital. If the right is represented by an ownership interest and it is in the form of a direct ownership of capital goods, its holder is entitled to take up income of his capital as this income is earned by the capital. On the other hand, if the right represents an interest that is in a form short of direct ownership of capital goods, the holder of such a right is governed as to when he may take up income accruing to his right by the private agreement (contract) drawn up between himself and the party entrusted with the employment of his capital.

Present Study Concerns Property Rights and Income Therefrom

Economics does not concern itself pri-

[3] The concept of income summarized above is probably the most commonly accepted one at present among economists. See, e.g., Ely, R. T., and Hess, R. H., *Outlines of Economics* (1937), p. 101; Deibler, F. S., *op. cit.*, pp. 73–76; McIsaac, A. M., and Smith, J. G., *Introduction to Economic Analysis* (1937), pp. 18–21.

[4] Economists are not in general agreement as to just what should be the range of items included under the category of capital. At least five classifications may be distinguished.

(a) All wealth in existence at a point of time. See, e.g., Fisher, Irving, *Elementary Principles of Economics* (1912), p. 38.
(b) The portion of the stock of wealth known as producers' goods (of all kinds). See e.g., Taussig, F. W., *Principles of Economics* (1921), Vol. I, p. 69.
(c) The portion of the stock of wealth known as producers' goods plus such consumers' goods as are offered for hire. See, e.g., Carver, T. N., *Principles of Political Economy* (1919), p. 155.
(d) This classification may be in agreement with either (b) or (c) above, except that land (any natural resource) is left out. See, e.g., Deibler, F. S., *op. cit.*, p. 503; capital constitutes all produced means of production.
(e) Some economists part company entirely with the wealth concept of capital and define capital as "a monetary summation," or "a value sum expressed in terms of money." See, e.g., Fetter, F. A., *Economic Principles* (1916), p. 267; Turner, J. R., *Introduction of Economics* (1919), p. 468.

The definition adopted in the present study has no doubt some defects when broadly applied. Consider, for example, the difficulty introduced into a statement of the law of diminishing returns if the definition of capital includes land with its peculiarity of limited quantity, spatial immobility, and nonreproducibility. The definition used in this study provides, however, in the least controversial way, the attribute of capital as a stock of wealth at a point in time, aiding further production, in contrast to the attribute of income as a flow of wealth over a length of time.

marily with an analysis of the different types of property rights in capital. It is preoccupied mainly with the production of capital and the income yielded by capital, whatever may be the form of the actual division of this income between the various classes of property interests represented in a given time and place.[5] The present study is concerned with an individual's property rights in capital and income accruing to such rights, rather than in capital in general together with the income yielded by this capital. This departure from the economist's viewpoint should not however obscure the fundamental facts regarding capital and income stated in the preceding section.

As already implied, an individual's store of property rights, acquired through the act of investing savings, represent—in terms of money—not only ownership interests in capital goods employed by him in his enterprise but ownership interests as well as other forms of property rights in capital goods employed by others. Property rights of the latter type are commonly evidenced by stocks, bonds and other securities.

In the subsequent discussion, the term investment (or asset) will be substituted for the less familiar term property right, and the term income will refer to income from an individual's investment (or asset).

Realization as an Attribute of Income

In the principle of realization as an attribute of income is seen an important distinction between income from a particular investment and mere growth of or accretion to the investment. Value-enhancement of an individual's income-yielding investment may occur from the operation of a number of factors, which may be summarized into three categories. The first is income earned by the capital but retained as capital and hence not immediately received or drawn by the person possessing an interest in the capital. The second is increased demand for capital, reflecting increased demand for the products of capital. The third is rise in general price level, reflecting decline in the value of the monetary unit.[6] Under the interpretation here adopted, until realization takes place, the fact of increase in investment value arising from one or more of the causes just stated does not lead to income recognition by the holder of the investment in question. Realization is understood to imply a coming-in, an inflow, with disposability of that which is received entirely a matter of recipient's will, at the same time leaving the investment value, as measured by acquisition cost, unimpaired. If this test is not met, it is believed that there is no income in any valid sense. An expansion in the existing basis of income, a rise in the value of the titles to future income is no occasion for the recognition of income now. As a result of increased investment value, the future may see an increase in the income yield, but this is a matter of the future, not of the present. The foregoing reasoning is not weakened by the statement made earlier that income received and later reinvested is still income upon receipt. Income received and then reconverted into investment is deemed to be materially different from investment increments never realized by the income claimant.[7]

[5] For discussion of this distinction see, e.g., Deibler, F. S., *op. cit.*, pp. 458–464.

[6] That is, the decrease in the purchasing power of the prospective income to be received.

[7] Fulfilment of the principle of realization discussed above would appear to rest on a three-fold requirement: (a) measurability of the money value of the thing received, (b) its disposability at the pleasure of the recipient, and (c) presence of gain in the thing received.

The criterion of realization has been emphasized in the writings of E. R. A. Seligman. See, e.g., *Are Stock Dividends Income?* (1919) 9 American Economic Review 517; and a more recent discussion in (1932) 7 *Encyclopedia of the Social Sciences*, pp. 628 *et seq.*

Professor Irving Fisher has interpreted the criterion of realization in the narrowest possible way, namely, as

The Business Entity as an Association of Individual Owners

Economic activity today centers around the business enterprise as a separate entity. In its essentials, a business entity is a means whereby the assets of individuals are placed under a single control in the pursuit of gainful activity. Disre-

something achieved only in consumption. Thus far this extreme view has found support only in Fisher's own writings.

Fisher defines income "as a flow of services through a period of time." *The Nature of Capital and Income* (1902), p. 52. According to Fisher, income is neither commodities themselves or psychic benefits derived therefrom, but rather a flow of services or uses from an existing stock of wealth. Income appears only when these services are rendered, and may be measured in terms of money. "Thus, a dwelling house now existing is capital; the shelter it affords . . . [or the money-rental it brings in] . . . is its income" (*ibid.*, p. 53). A feature of the service concept is the exclusion of savings (i.e., income reinvested) as income. "Savings are capital, the anticipation of income, not its realization. To add this year's anticipation of future years' services to this year's services actually realized is" double counting. Fisher, Irving, *Income in Theory and Income Taxation in Practice* (1937) 5 Econometrica 55. To avoid colliding with popular usage of the term "income," Fisher has in the last publication mentioned offered to use a longer expression "income after savings are taken out" to represent income under the service concept. "True, the added words are tautological if we accept the service-concept, but for that very reason they are harmless; and they put the concept in almost perfect accord with usage. If, to this, 'income after savings are taken out,' we add savings, the resulting sum may, if desired, be called 'income before savings are taken out.' But it is . . . better to call this greater magnitude simply 'earnings.'" Fisher, Irving, *A Practical Schedule for an Income Tax* (1937) 15 The Tax Magazine 379.

Objections to Fisher's theory of income may be divided into three parts. (1) Despite the attempt at clarification by adopting the longer expression, the service concept disregards a fundamental attribute of income well established in common usage, namely, a gain above acquisition cost. (2) The concept is also contrary to the meaning of the term "income" as used in economics in the analysis of the theory of distribution. Income that is distributed is not restricted to a flow of services, for wealth being distributed includes that which is saved as well as that which is consumed by the recipient. (3) The concept if carried into taxation would replace our present income tax with a tax which would essentially be a spendings tax. The undesirability of this is apparent if the ability-to-pay canon of taxation is admitted to be the basic scheme of our Income Tax Law.

All of the foregoing views employ the criterion of realization, but differ from each other in that point at which it is to be applied in recognition of income to an individual. The following simile suggests how the differences between the views arise. " . . . do we consider a guest to have arrived when he passes the garden gate or only when the front door has banged shut behind him? . . . [or when] he emerges from the guest-room and joins the assembled company?" Preinreich, G. A. D., *The Nature of Dividends* (1935), p. 23.

In contrast to the concept of income as essentially implying the receipt of something is the doctrine that income is "The money value of the net accretion to one's economic power between two points of time." See Haig, R. M., *op. cit.*, p. 27. As the definition stands there is some uncertainty as to the treatment of wealth consumed during the period in question. Presumably, the income of an individual would be measured as indicated in the example following:

Net wealth, December 31, 19—	$15,000
Net wealth, January 1, 19—	10,000
Increase for year	$ 5,000
Dollar expenditure on goods and services consumed during year	2,400
Income for year	7,400

Haig's definition of income, in the writer's opinion, comes closest to the theoretically ideal conception of income because of the emphasis upon gain to a person during a period of time. The gain is two-fold: consumption—market value of goods and services consumed; and accumulation—the increase in the market value of a person's store of property rights over the period in question. Stated differently, income under the view discussed is obtained by adding the dollar value of consumption during the period to the net wealth at the close of the period and then subtracting from the resulting sum the net wealth at the beginning of the period.

The problems which Haig's concept would raise when applied to real life seem, however, to counterbalance the undoubted merit which it theoretically possesses. A practical requirement (to mention but one) in applying the concept would be the complete revaluation of all of a person's property rights at the end of each fiscal period—a difficult, if not well nigh impossible, task. If the Haig concept of income is applied to real life, the belief is ventured that some form of a realization criterion would have to be adopted. Practically, instead of the question, When is income realized?, there would be substituted the question, When should value changes be recognized? In answer to either question a realization criterion would have to be introduced.

. . . . .

It is submitted that the concept of income adopted in this study meets better the general criterion of a good definition. This criterion has been succinctly stated by Irving Fisher as follows: " . . . [the definition] . . . must be useful for scientific analysis; and it must harmonize with popular and instinctive usage." See Fisher, I., *The Nature of Capital and Income*, p. 103. W. W. Hewitt has amplified the thought in Fisher's standard of a good definition in the following effective way: "The definition must be useful, that is, free from ambiguities and contradictions, and capable of serving well as a tool for scientific analysis. The definition must at the same time be as little as possible in defiance of popular usage. It would be very unfair to take a word so commonly used in the market place and give it a meaning quite different from that of current usage . . . the aim of the economist should be to convert the vague, general usage of the word 'income' into a definite, clear cut concept, without loss of the real spirit of the word." Hewitt, W. W., *The Definition of Income and Its Application in Federal Taxation* (1925), p. 10.

garding for the moment a possible legal distinction between entity assets and ownership of beneficial interests therein by individuals, it may be said that the assets contributed belong to individuals. The business entity makes use of the assets in the end that profits may result. The business entity employs assets but does not own them. Individuals own the assets. This fundamental fact is expressed in the balance sheet of a particular enterprise. On the one hand is presented the assets in the employ of the business; on the other hand is shown an equivalent sum as the obligation of the enterprise to furnishers of the assets. The enterprise, qua enterprise, has no net assets.

If the assets in the employ of the entity belong to individuals, entity profits likewise belong to these individuals. Profits accrue to the individuals as they are made by the entity. Profits of the entity, in other words, are indistinguishable from income to owners of the entity. Entity profits being merged with income to owner-individuals, the test of income recognition used in determining the former serves also to determine the latter.

Peculiarities of the Corporate Entity

The foregoing analysis would seem to be in accord with the facts surrounding any business entity. Whether the entity is large or small, is owned by a few persons or by many, would seem not to matter. A further study will show, however, that the analysis made above falls short of fitting a very important situation in real life. The situation referred to is that of the incorporated business entity. The realities surrounding the corporate entity require, it is believed, a different type of analysis, if the explanation is to square with the facts of the real world of today. The corporate entity does not represent merely an "exception to the rule," a situation which could be neglected for purposes of sound generalization. The corporation is today the characteristic institutional means of organizing economic activity. Its development has proceeded far enough to justify the statement that we are now living under a truly "corporate system" which dominates the present era in a way reminiscent of the "feudal system" of an earlier time.[8]

That the incorporated entity is clothed with certain legal attributes and powers is common knowledge. Foremost among these powers and attributes is the one recognizing the corporation as an artificial person, distinct from its stockholders, with an existence separate from the existence of the stockholders. It follows from this that a corporation not only employs assets in gainful activity but may also have a net equity in such assets. Assets were of course initially contributed by stockholders, but the relation thereby created is in the nature of a specific contractual relation between two separate entities, the corporation and the stockholder. The contract is known as a share of capital stock, its terms being defined in the stock certificate. Shares of capital stock are units of beneficial interest in the corporation, the nature and extent of the interest being stated in the "contract." In general, the interest of a share consists of (1) right to portion of earnings of the corporation when and if distributed, (2) right to portion of eventual return of investment with chance of gain or loss thereon upon winding up of the corporation, and (3) right to vote in the administration of the business during its life. Since there are various

[8] According to Berle and Means, writing in 1932, the corporate system has probably not yet "attained its zenith. Spectacular as its rise has been, every indication seems to be that the system will move forward to . . . [greater] . . . proportions. . . ." *The Modern Corporation and Private Property* (1932), p. 1.

See also the illuminating volume recently prepared on this subject by Twentieth Century Fund, Inc., entitled, "*Big Business: Its Growth and its Place*" (1937), Chapters 1 to 3 and 8.

classes of shares reflecting differences in the degree to which one or more of the rights mentioned are conferred upon a particular class, the statement made is intended only as a broad description.[9] The contracts or shares are generally transferable upon sale by one holder to another, the same as any negotiable instrument is transferable by endorsement of the vendor. The comparative ease or difficulty with which the transfer or sale is effected is reflective of the nature and extent of the market for the share in question. In the market evaluation of a share there is a continuous, more or less objective appraisement of the rights embodied in the share. To the holder of a share, the price paid to acquire it constitutes his investment.

Based on the statement of the nature of a share of stock just made, a number of propositions are easily seen to follow. In the first place, assets in the employ of the corporation are owned by the corporation, not by the stockholders. The latter own shares of capital stock, i.e., contracts with the corporation. Secondly, as already pointed out, the corporation may actually hold an ownership equity in the corporate assets, the same as any other "person." From this follows a third proposition. Profits of the corporation, being the yield upon its net assets, also belong to the corporation. If corporate profits are distinctively owned by the corporation, such profits cannot accrue to stockholders as they are earned by the corporation. This is another way of saying that corporate profits cannot be taken up as income by stockholders until the profits are distributed by the corporation.

It is a familiar truism, and much to the point here, that the same thing cannot be owned at the same time and in the same sense by two different owners. The problem of income determination is faced by the corporation as a distinct entity. The same problem is again faced by the stockholder when he must determine his income. To aid in the solution of the problem is a body of accepted principles of accounting, included in which is the requirement of realization discussed in a preceding section. The problem is solved separately, however, by the corporation and by the stockholder. There are two separate income streams, one for the corporation and another one for the stockholder. The measurement of one is determined independently of the other. This is so, notwithstanding that both may be related to each other in the sense that the existence of corporate income is an antecedent requisite to a possible, subsequent income stream flowing to the stockholder.

Close vs. Public Corporation

The peculiarities of the corporate entity and the distinctions between stockholders and corporation, sketched above, are, for practical purposes, of minimum significance in connection with a corporation that is "closely" controlled. If the capital stock of such a corporation is held by another corporation, a parent-subsidiary situation is created. If the capital stock is held by a small group of individuals, the result is an incorporated private business.[10] In either of these cases, the corpo-

[9] Attention is directed, further, to the important qualifications, expressed and implied, in connection with each of the three broad rights enumerated. The right to earnings materializes only when and if distributed by the corporation as dividends. The right to pro rata portion of net assets is subject to the dissolution of the corporation and its winding up. The right to vote is only a nominal right for the average stockholder in a large corporation.

For detail discussion of the subject of this note, see Shaffner, F. I., *The Problem of Investment* (1936) Chapters 4 and 5.

[10] In some corporate situations, control is virtually in a few hands through such means as interlocking directorates, investment trusts, and banking affiliations, but these may be left out of consideration. That the instruments stated may turn out to be effective substitutes for close ownership of voting stock cannot be denied. Usually, however, the existence of such control in large corporations does not make of them close cor-

ration is practically an association of its stockholders, the latter being directly empowered to do what they wish with the corporation. In either of the cases, the corporation is set up as "a legal alter ego—(a) nominal vehicle . . . for the future conduct of the business . . . (the) business will remain as before except for such legal changes as the limitation of liability, the new tax status and the necessity that it be managed nominally through a board of directors."[11]

In contrast, the legal attributes and powers of a corporation not identified with "closely" held control may assume important proportions. Corporations of this character may employ great aggregates of assets, contributed by many investors, under a single, central direction. It is under such circumstances that corporate attributes and powers founded upon the legal logic of corporate individuality have seen their highest development. The extent to which these attributes and powers have actually developed in many corporate situations today is so impressive as to make of them substantial economic truths, apart from the legal logic in which the attributes and powers were originally conceived. It is in corporate situations of this character that the truly contractual nature of a share of capital stock is best revealed as a stipulated set of rights and duties between the corporation and its stockholders. It is under such situations that ownership of shares by the individual usually does not carry with it power to control corporate affairs, much less (pro rata) ownership of the net assets of the corporation as a going business.[12] Multiplication of share owners has truly transformed many corporations into the positions of a quasi-public institution, far removed from the realities of the private business entity first described above.[13]

porations in the sense referred to in the text above. Concentration of control in a large corporation still leaves that corporation in the status of a quasi-public institution.

[11] Berle, A. A. Jr., and Means, G. C., *op. cit.*, p. 4.

[12] Berle, A. A. Jr., and Means, G. C., *op. cit.*, p. 279. "Conceived originally as a quasi-partner, manager and entrepreneur, with definite rights in and to property used in the enterprise and to the profits of that enterprise as they accrued, he . . . [i.e., the stockholder] . . . has now reached an entirely different status. He has, it is true, a series of legal rights, but these are weakened in varying degree (depending upon the completeness with which the corporation has embodied in its structure the modern devices) by the text of the contract to which the stockholder is bound. His power to participate in management has, in large measure, been lost to him, and has become vested in the "control." He becomes simply a supplier of capital on terms less definite than those customarily given or demanded by bondholders; and the thinking about his position must be qualified by the realization that he is, in a highly modified sense, not dissimilar in kind from the bondholder or lender of money."

For discussion stating the same point, see Ware, C. F., and Means, G. C., *The Modern Economy in Action* (1936), pp. 49–52.

[13] The increasing diffusion of stock ownership is evident from the following statements:

(1) "The number of book stockholders of the 31 largest corporations [in the United States] has increased from 226,543 in 1900 to 1,419,126 in 1929. . . . " Shaffner, F. I., *The Problem of Investment* (1936), p. 35. In the same citation, the author quotes from a study by Means, G. C., *The Diffusion of Stock Ownership in the United States* (1930), 44 Quarterly Journal of Economics 595, to show how impressive has been the growth of the number of book stockholders from 1900–1928 (in millions):

1900	1910	1913	1917	1920	1923	1928
4.4	7.4	7.5	8.6	12.0	14.4	18.0

"It seems probable," states Shaffner, "That these figures bear witness to the appearance of a new type of investor, one of small means, comparatively unskilled in the affairs of business and in the conduct of corporations, who must be content with receiving his information . . . at long range. . . . In view of these facts the recent and growing tendency to divorce control from ownership . . . is not surprising." *Op. cit.*, p. 36.

GOODWILL ON FINANCIAL STATEMENTS*

GEORGE T. WALKER

GOODWILL ON THE BALANCE SHEET

VERY little has been said about goodwill upon financial statements. Of three books on goodwill and its treatment in the accounts no mention was made of goodwill upon the balance sheet or profit-and-loss statement.[1] A few writers have given their views as to its position in the balance sheet or have stated its proper position without giving reasons for their point of view.[2] Again, but few writers have considered the question of whether amortized goodwill should be charged to current profit and loss or to surplus directly. Paton, though his statement is brief, has probably made the best approach in this connection.[3] In this paper, an attempt has been made to give a fairly complete discussion of these theoretical questions. In addition, the practical side of these questions is considered through the introduction and analysis of a number of recent financial statements of outstanding industrial concerns. The first question discussed here, and probably the most important, regards the placement of goodwill on the balance sheet.

The Federal Reserve Board bulletin of 1917 recommended that the amount of goodwill be shown as a subtraction from the surplus and capital stock of the corporation. In the "Verification of Financial Statements" (1929) published by the Federal Reserve Board in conjunction with the American Institute of Accountants, this practice was not followed, but instead intangibles were presumably placed in the "Other Assets" section. In the more recent "Examination of Financial Statements" published by the American Institute of Accountants, a separate section (entitled "Intangible Assets") was proposed. This section was to follow that provided for "Property, Plant and Equipment" and to precede "Deferred Charges" and "Other Assets."

It might be desirable for credit or other purposes to show the financial condition of an enterprise on the basis of tangible assets alone. If so, goodwill or the intangibles might appear on the balance sheet as deductions from the proprietary equity. In practice this procedure has not been followed. A large percentage of balance sheets are not made up simply for credit purposes.

Tables I and II have been prepared in order to show the prevailing practices in the treatment of goodwill on the balance sheet. As indicated by both tables there is but little uniformity as to the position of goodwill on the statements.

On twenty of the thirty-two balance sheets summarized in Table I and all eighteen of those in Table II, goodwill or the intangible items are set up in a distinct section of the balance sheet. Two of the statements in Table I are not in classified form, and hence on thirty-eight of the forty-eight statements that are in classified form goodwill was shown in a section separate from the physical assets. In all these cases the section was entitled

---

* The writer acknowledges a number of helpful suggestions and criticisms made by Dr. Earl A. Saliers and Dr. Daniel Borth of the Louisiana State University.

[1] Yang, J. M., *Goodwill and Other Intangibles*, The Ronald Press Company, New York, 1927; Dicksee, Lawrence R. and Tillyard, Frank, *Goodwill and Its Treatment in Accounts*, Fourth Edition, Gee and Company, Ltd., London, 1920; Leake, P. D., *Commercial Goodwill*, Sir Isaac Pitman and Sons, Ltd., London, 1930.

[2] Finney, H. A. *Introduction to Principles of Accounting* (New York: Prentice-Hall, Inc., 1935); Finney, *Principles of Accounting*, Vol. I; William H. Bell, Accountants' Reports (3rd ed.; New York: The Ronald Press Co., 1934), p. 49.

[3] Paton, W. A., Editor, *Accountants' Handbook*, Second Edition, The Ronald Press Company, New York, 1936.

TABLE I

Name of Company	*Title of Account or Section*	*Amount*	*Position on the Balance Sheet*
Allied Chemical and Dye Corporation	(Patents Process, Goodwill, etc.)	21,305,942.00	Only item under "Other Assets" section, the last on the asset side.
Allis-Chalmers Mfg. Co.	(Goodwill and Patents)	11,557,760.00	Last item under "Fixed Assets" section, which section follows "Current Assets" and precedes "Other Assets" and "Deferred Charges" sections.
American Agricultural Chemical Company	(Goodwill, Brands, & Trade-Marks)	1.00	Last item on the balance sheet under the "Capital Assets" section.
American Bakeries Corp.	(Goodwill)	2,093,861.00	Last section following "Plant and Equipment" section.
American Tobacco Co., The	(Brands, Trade-Marks, Patents, Goodwill, etc.)	54,099,430.00	Last item on asset side. (This balance sheet is not in classified form.)
Armour and Company	(Goodwill—Less Amortization)	1,396,075.00	Last item in "Fixed Assets" section, which section precedes "Deferred Charges" section.
Armstrong Cork Company	(Goodwill, Trade-Marks, and Patents)	1.00	Last section following "Convertible Debenture Discount and Expenses" section.
Bendix Aviation Corp.	(Patents, Contracts, Goodwill, etc.)	1.00	Last item under the "Fixed Assets" section.
Bon Ami Company, The	(Goodwill, Trade-Marks, and Copyrights)	2,850,001.00	Last section following "Deferred Charges" section.
Canada Dry Ginger Ale Company	(Goodwill, Trade-Marks, etc.)	1.00	Last section following "Deferred Charges" section.
Carnation Company	(Patents, Trade-Marks, Goodwill)	1.00	Next to last section following "Capital Assets" section and preceding "Deferred Charges" section.
Caterpillar Tractor Co.	(Patents, Trade-Marks, and Goodwill)	1.00	Second section following "Current Assets" section and preceding "Land, Buildings, and Machinery" section.
Chrysler Corp., The	(Goodwill)	1.00	Next to last section following "Plant and Equipment" section and preceding "Deferred Charges" section.
Cocoa-Cola Company, The	(Formulae, Trade-Marks, and Goodwill)	30,576,423.00	Next to last section following the "Permanent Assets" section and preceding the "Deferred Charges" section.
Colgate-Palmolive-Peet Company	(Goodwill, Patents, Trade-Marks, etc.)	1.00	Last section following "Plant and Equipment" section.
Cudahy Packing Co., The	(Royalty Interest, Goodwill, etc.)	94,656.00	Last item under "Intangible Assets" section, which section precedes the "Deferred Charges" section.
Curtis Publishing Co.	(Goodwill)	10,979,000.00	Last section following "Deferred Charges" section.
Curtis-Wright Corp.	(Goodwill)	1.00	Last item on the asset side. (This balance sheet is not in classified form.)
Falstaff Brewing Co.	(Goodwill, Trade-Marks, etc.)	2,175,125.00	Next to last section following "Other Assets" section and preceding the "Deferred Charges" section.
General Goods Corp.	(Trade-Marks, Patents, and Goodwill)	1.00	Next to last section following "Property" section and preceding "Deferred Charges" section.
Goodyear Tire & Rubber Company	(Goodwill, Patents, and Trade-Marks)	1.00	Next to last section followed by "Deferred Charges" section and preceded by "Current Assets" section.
Kress, S. H., and Company	(Goodwill, Leaseholds, etc.)	1.00	Last item under the "Capital Assets" section.
Liggett & Myers Tobacco Company	(Brands, Trade-Marks, and Goodwill)	1.00	Second item in "Other Assets" section—the last section on asset side.

TABLE I—*Continued*

Name of Company	*Title of Account or Section*	*Amount*	*Position on the Balance Sheet*
Loose-Wiles Biscuit Company	(Goodwill and Trade-Marks)	8,085,059.00	Third section from bottom of asset side, being followed by "Patents in Process of Amortization" and "Deferred Charges" sections and preceded by the "Property" section.
McKesson & Robbins, Inc.	(Goodwill, Trade-Marks, and etc.)	1.00	Last section following "Deferred Charges" section.
National Dairy Products Corporation	(Goodwill)	22,391,853.00	Last section of balance sheet, entitled "Goodwill."
Nehi Corporation, The	(Goodwill, Trade-Marks, and Formulae)	2,039,648.00	Last section following the "Fixed Assets" section.
Otis Elevator Company	(Patents, Trade-Marks, Goodwill, and Other Intangible Assets)	1.00	Third section from bottom of asset side, preceded by "Fixed Assets" section and followed by "Deferred Charges" and "Contract Installation in Progress" sections.
Procter & Gamble Co.	(Goodwill, Patents, Licenses, etc.)	1.00	Last item in "Fixed Assets" section, which section is followed by "Deferred Charges" section.
Remington Rand, Inc.	(Goodwill, Patents, etc.)	1.00	Last section following "Deferred Charges" section.
Standard Oil Company (New Jersey)	(Patents, Copyrights, Goodwill, and Organization Costs)	34,569,208.00	Last item under "Fixed Assets" section, which section precedes "Deferred Charges" section.
Walgreen Company	(Goodwill, Leaseholds, etc.)	1.00	Last section following "Fixed Assets" section.

This data has been summarized from fifty annual statements on file in Louisiana State University. Only the firms as listed had items of goodwill on their statements.

All statements are consolidated except those of the Caterpillar Tractor Company and Falstaff Brewing Company.

All statements appeared under date of December 31, 1935, except the following: Curtis Publishing Company (December 31, 1935); Armour and Company (November 2, 1935); American Bakeries Corporation (December 28, 1935); Remington Rand, Inc. (March 31, 1936); American Agricultural Chemical Co., Armstrong Cork Company, Nehi Corporation, and Procter & Gamble Company (June 30, 1936); Canada Dry Ginger Ale Company and Walgreen Company (September 30, 1936); Cudahy Packing Company (October 31, 1936); and Carnation Company (December 31, 1936).

"Goodwill," "Goodwill, Trade-Marks, etc.," "Goodwill, Patents, and Copyrights," or a similar title which clearly indicates that only intangible items are listed under that section.

Of the twenty statements in Table I that have separate sections for the intangible items, eleven list this section as the last section on the balance sheet. On six of the other twelve statements, which do not carry a separate section for "Intangibles," the intangibles appear as the last item on the balance sheet though not under a section of that title. On four of the eighteen in Table II, the "Intangible Assets" section is the last.

On six of the statements in both tables, the intangible assets section is next to the last section on the balance sheet. In all these cases, the section is followed by one captioned "Deferred Charges."[4]

On seven of the statements in Table I, the good will item appears as the last item in the "Fixed Assets" or "Capital Assets" section. To show further the varying practice in regard to placement of goodwill on the balance sheet, it might be added that in Table II, on five of the eighteen statements, the intangible section was presented as the second section of the balance sheet. In addition to the placement

[4] In the opinion of the writer there is no valid reason for placing the section "Deferred Charges" as the last section on the balance sheet. If the "current-to-fixed" or "fixed-to-current" theory is followed, it means that deferred charges have to be considered either the most current or most fixed of all assets.

TABLE II

Name of Company	*Title of Account or Section*	*Amount*	*Position on the Balance Sheet*
**Atlas Power Co.	(Goodwill, Patents, etc.)	4,053,001.00	Next to last section preceding "Deferred Charges" section.
*Bullocks, Inc.	(Goodwill)	1.00	Next to last section preceding "Deferred Charges."
***Endicott Johnson Corp.	(Goodwill)	1.00	Second section preceded by "Land, Buildings, Machinery" section.
**General Cigar Co., Inc.	(Goodwill, etc.)	1.00	Second section following "Land, Buildings, and Machinery" section.
**Greif Bros. Cooperage Corporation	(Goodwill)	1.00	Next to last section preceding "Deferred Charges" section.
**Hart, Schaffner & Marx	(Goodwill, Trade Names, etc.)	1.00	First section, followed by "Machinery, Furniture & Fixtures" section.
***Hiram Walker-Gooderham & Woots, Inc.	(Goodwill, Processes, and Trade-Marks)	8,455,196.00	Last section preceded by "Investments" section.
***Hupp Motor Car Company	(Goodwill, Trade Names, etc.)	1.00	Third section from top, preceded by "Fixed Assets" and "Investments" sections.
***Hygrade Food Products Corporation	(Goodwill)	1.00	Next to last section followed by "Deferred Charges" section.
**Kuppenheimer & Co., Inc.	(Trade-Marks and Goodwill)	1.00	Second section preceded by "Land, Buildings, Machinery" section.
**Manhattan Shirt Co.	(Goodwill, Patents, etc.)	5,000,000.00	Second section preceded by "Land, Plants, and etc."
***Munson Steamship Line	(Goodwill, etc.)	557,750.00	Next to last section followed by "Deferred Charges" section.
**Paraffine Companies, Inc.	(Goodwill)	1.00	Next to last section followed by "Deferred Charges" section.
*Revere Copper and Brass, Inc.	(Goodwill)	1.00	Last section following "Cash Deposit in Sinking Fund" section.
*Thermoid Company (and Subsidiaries)	(Goodwill, etc.)	1.00	Last section following "Prepaid Expenses" section.
**Twin Coach Company	(Goodwill and Patents)	29,500.00	Third section from bottom followed by "Deferred Charges" and "Other Assets" sections.
**Ward Baking Corp. (and Subsidiaries)	(Goodwill, Patents, and Copyrights)	11,522,629.00	Last section preceded by "Deferred Charges" section.
**Woolworth, F. W., Co.	(Goodwill)	1.00	Second section preceded by "Real Estate and Buildings Owned" section.

The data as it appears here has been taken from *The Commercial and Financial Chronicle*. Balance sheets of those companies preceded by one asterisk appeared in the May 9, 1936 issue; those preceded by two asterisks in February 1, 1936 issue; those preceded by three, in January 16, 1937.

All statements are consolidated except those of Bullocks, Inc.; Hart, Schaffner, & Marx; Kuppenheimer and Co., Inc.; Manhattan Shirt Company; and Paraffine Companies, Inc.

The date of all balance sheets was December 31, 1935, except the following: Bullocks, Inc. (January 31, 1935); Hygrade Food Products Corporation (October 31, 1934); Greif Bros. Cooperage Corporation (October 31, 1935); Kuppenheimer & Co., Inc. (November 2, 1935); Hart, Schaffner & Marx, Manhattan Shirt Company (November 30, 1935); Twin Coach Company (September 30, 1935); Ward Baking Corporation (December 28, 1935); Munson Steamship Line (June 30, 1936); Hiram Walker-Gooderham & Woots, Inc. (August 31, 1936); Hupp Motor Car Company (September 30, 1936); and Endicott Johnson Corporation (November 30, 1936).

of goodwill on the balance sheet as pointed out above, it has been shown in various other places on these balance sheets.

Which of the above is the best treatment? This is a question that accountants have made little attempt to answer. Finney presents goodwill as the last item in the "Fixed Assets" section but gives no reason for such placement.[5] Sherwood and Hornberger follow the same practice.[6]

[5] Finney, H. A., *Introduction to Principles of Accounting*, p. 508.
It is interesting to note that of the fifty statements summarized in Tables I and II, goodwill is shown as the last item in the "Fixed Assets" or "Capital Assets" section on only seven.

[6] Sherwood, J. F. and Hornberger, D. J., *Fundamentals of Auditing*, Southwestern Publishing Company, New York, 1930, p. 266.

Paton classifies intangibles as fixed assets,[7] but does not state where goodwill should be placed on the balance sheet.

According to an accepted definition of fixed assets,[8] the intangibles would fall under the "Fixed Assets" classification. The logical arrangement of assets on the balance sheet is either "order of liquidity" of "inverse order of liquidity." As a rule, in practice, the items appear in "order of liquidity," i.e., the list of assets begins with cash and ends with the least liquid asset.[9]

It seems evident that all would agree that the intangibles are the least liquid of all assets.[10] Thus, in the light of the above facts, there is some logic to the presentation of goodwill as the last item in the "Fixed Assets" section.

Nevertheless, there is an increasing tendency to show goodwill and the other intangibles in a category distinct from the other fixed assets. In the writer's opinion the intangible assets should appear not in the "Fixed Assets" section but under the caption "Intangible Assets." This view is shared by a number of prominent accountants.[11] Several valid reasons might be given for presenting goodwill or the intangibles in a section of the balance sheet separate from the other fixed assets.

First, the calculation of financial and operating ratios would be facilitated in many instances. In the computation of certain ratios the total for tangible fixed assets (or "plant and equipment") should be used instead of fixed assets. The ratio of net working capital to fixed assets (plant and equipment) calculated to show the supply and position of working capital is one example[12] of a ratio that would be easier to calculate if the tangible fixed assets were shown separate from the intangibles.

Second, since different criteria are followed in the valuation of tangible and intangible assets, it seems that it might be wise not to combine the two. This is especially true if a revaluation has been made of the fixed tangible assets. In a revaluation of tangible assets, reproduction costs would be the controlling factor, whereas in the valuation of intangible assets the earning power of the concern would be the controlling consideration. Thus, it is evident that a total of such fixed tangible assets and fixed intangible assets would be a hybrid figure that could have but little significance.

Third, as has already been pointed out, many people doubt the validity of the goodwill or intangible item that appears on the balance sheet. In other words, they attach no significance to the amount of intangibles shown on the statement. This being the case, if the tangible and in-

[7] Paton, W. A., editor, *Accountants' Handbook*, pp. 16, 152.

[8] See Richardson, A. P., editor, *Accounting Terminology*, American Institute Publishing Co., Inc., New York, 1931, pp. 11–13; Racine, Samuel F., *Junior Auditing*, The Western Institute Press, Seattle, 1933, p. 42; Paton, W. A., *Accountants' Handbook*, p. 16; Finney, H. A., *Introduction to Principles of Accounting*, p. 167.

[9] In a study of the balance sheet form and classification of five hundred and eighty-seven corporation reports of representative firms by E. I. Fjeld, the following statement is made in the summary: "The current-to-fixed sequence of classification was used in eighty-two and eight tenths per cent of all cases." (See E. I. Fjeld, "Balance Sheet Form and Classification in Corporate Reports," the Accounting Review, Vol. xi, No. 3, September, 1936, p. 227.

[10] "They (intangibles) are the most fixed of all fixed assets."—Yang, J. M., *Goodwill and Other Intangibles*, p. 127.

"Goodwill may be said to be the most fixed of all (assets), for all other assets may be disposed of without selling the business, but not so with goodwill."—Fjeld, E. I., "Classification and Terminology of Individual Balance Sheet Items," the Accounting Review, Vol. xi, No. 4, 1936, p. 333.

[11] "Intangible assets are usually stated last on a balance sheet. They may be included under fixed assets but it is better to give them independent classification."—Montgomery, *Auditing—Theory and Practice* (5th ed.), p. 323. See Hatfield, *Accounting—Its Principles and Problems*, p. 126; William H. Bell, *Accountants' Reports* (3rd ed.; New York: The Ronald Press, 1934), p. 49; Bliss, *Management Through Accounts*, p. 351.

[12] See Paton, *Accountants' Handbook*, pp. 83–84. Also see Finney, *Principles of Accounting*, Vol. i, pp. 464–465.

tangible fixed assets are shown in separate sections of the balance sheet it would allow the ready evaluation of the tangible assets. If for other reasons it is desired that the goodwill or intangibles be eliminated from the statement, the elimination would be made much easier through the use of separate sections on the balance sheet for the tangibles and intangibles.

Fourth, in the preparation of condensed balance sheets, Paton,[13] as well as other writers and practitioners, contends that the intangibles should be shown as a separate item on the condensed balance sheet. In view of this fact, the preparation of condensed balance sheets would be made easier. If the intangibles are shown together with the fixed tangible assets in a condensed balance sheet, how can the accountant present the reserves for depreciation? Certainly no one would recommend that all fixed assets be shown as one total—less reserves for depreciation.

Fifth, there is a fundamental difference between fixed tangible assets and fixed intangible assets. Tangible fixed assets are more directly used in production or in the operation of the business than is goodwill. Other differences can readily be recalled by the reader. Certainly, the difference between tangible fixed assets and intangible fixed assets is as great as the difference between current assets and fixed assets.

In a model balance sheet presented in a bulletin of the American Institute of Accountants, the following sequence was suggested:[14]

Fixed Assets:
  Land
  Bldg., etc.

Intangible Assets:
  (Describe)

A recent study by Fjeld indicates that accounting practice seems to favor the exclusion of the intangibles from the fixed assets classification. Such items were thus classified in only 14.6 per cent of the statements having intangibles.[15] The general practice, according to that study, is to show them in a separate section, this being done in 80.4 per cent of the cases.[16] As already pointed out, of the forty-eight statements in Tables I and II that are in the classified form, in thirty-eight cases, goodwill was shown in a section distinct from the physical assets. In other words, in 79.2 per cent of the cases the intangible items were presented in a separate section.

By the use of the word "intangibles" in the above discussion, the writer did not intend to imply that all intangibles should appear as one item under the caption or a similar one, even though in practice this procedure is often followed.[17] Every accountant would agree that it is preferable to present in the Current Asset Section of the balance sheet the specific amounts of cash, receivables, inventories, etc. The same reasons apply in the case of the presentation of the intangible assets. Then following the "order of liquidity" theory, the intangibles should be presented in the balance sheet in that order under the caption "Intangible Assets." Since goodwill is considered to be the most fixed of all assets,[18] it should appear as the last item in the "Intangible Assets" section of the balance sheet.

In published balance sheets, only a very few corporations show goodwill, patents, and trade-marks as separate items.[19] Goodwill is combined with other intangibles in twenty-six of the thirty-two balance sheets appearing in Table I, and in eleven of the eighteen in Table II. The

[13] Paton, *Accountants' Handbook*, p. 17.

[14] *Examination of Financial Statements by Independent Public Accountants*, American Institute of Accountants (January, 1936), p. 38.

[15] Fjeld, E. I., *op. cit.*, p. 333.

[16] Fjeld, E. I., *op. cit.*, p. 333.

[17] See Fjeld, E. I., *op. cit.*, p. 333.

[18] *Supra*, Note 10.

[19] See Tables I and II.

titles include various combinations of the following terms: Brands, patents, licenses leaseholds, copyrights, goodwill, trademarks, formulae, processes, franchises, royalty interest, trade-names, contracts, and organization costs.[20] An account title of this nature is confusing and inexplicit.

On seventeen of the thirty-two statements in Table I, and twelve of the eighteen in Table II, the goodwill or intangible item is expressed at one dollar. More conservative accountants and business men are of the opinion that purchased goodwill should be amortized and accordingly at periodic or irregular intervals a portion of the intangibles is written off. The account is permitted to remain at one dollar to indicate that either intangible values are present or better that the company follows a conservative point of view in recording intangibles. No doubt, this method of treatment serves a purpose but in the writer's opinion, another method should be introduced which would more completely show the desired facts. Instead of a credit being made to the Goodwill account when amortizing goodwill, the writer would suggest that the credit be made to a reserve or allowance account. This account might be entitled "Reserve for Amortization of Goodwill," or some other similar explanatory title would suffice. Then, on the balance sheet the information or data concerning Goodwill would appear as follows:[21]

Goodwill	xxxxx	
Less Reserve for Amortization	xxxx	xxxxx

It is universally recognized by accountants that it is preferable to credit a "Reserve for Depreciation" account instead of making the credit in the asset account which has depreciated in value. The same procedure may well be followed in regard to the asset Goodwill.

Another problem concerning goodwill upon the balance sheet must now be considered. Oftentimes when a holding company pays more than book value for the subsidiary's stocks, the balance or difference is brought into the consolidated balance sheet as Goodwill. In such a situation, the debit to the Goodwill account *might* indicate the actual increase in the asset goodwill, but this would seldom be the case. According to the customary treatment, such an item would be combined with any debit which had originally been made to the Goodwill account upon a bona fide purchase. Thus, on the consolidated balance sheet the Goodwill account often represents the amount of goodwill actually purchased plus an excess of purchase price of the subsidiaries' stocks over the book value of the subsidiaries' stocks. If such an excess is to be shown in the accounts as goodwill, the writer is of the opinion that the items should not appear in the balance sheet as one item, but should appear in a form similar to the following:

Purchased Goodwill	xxxxx	
Plus Excess of Purchase Price of Subsidiaries Stocks over Book Values	xxxxx	xxxxx

To the reader of the balance sheet this form would present a more complete picture of the actual situation.

In view of this fact it is surprising to note that thirty of the thirty-two statements in Table I and thirteen of the eighteen in Table II are consolidated state-

[20] The study made by Fjeld shows practically the same practices. In many cases he found that goodwill had been combined with two, three, or even six intangible items.—Fjeld, E. I., *ibid.*, p. 333.

[21] Of all the balance sheets studied and presented in Tables I and II, none present the data as suggested here. However, one corporation (Armour & Company) in Table I showed "goodwill less amortization." In the study of Fjeld none of the corporations showed a reserve for the amortization of goodwill, but quite a few reserves for the amortization of patents, trade-marks, and other intangibles appear. (See Fjeld, *op. cit.*, p. 341.)

ments, but not in a single instance was the origin or origins of the goodwill indicated when shown as a balance sheet item.[22]

It is probable that in a few cases a company might properly have non-purchased goodwill recorded in the accounts. If this be true, the amount of such goodwill should be shown in the "Intangible Assets" section as "Nonpurchased Goodwill."

GOODWILL ON THE PROFIT AND LOSS STATEMENT

A number of writers contend that goodwill should be amortized, but in all available accounting literature there is no thorough discussion of the important question of whether amortized goodwill should be charged to the current profit and loss or to surplus directly.

In Table I, 53.1% and in Table II, 66.7% of the companies show an intangible item of one dollar. On eighty-six of the balance sheets studied by Fejld, goodwill was shown as a separate item, and on thirty-one of these statements goodwill was given a valuation of one dollar.[23] This would seem to indicate that a majority of practicing accountants consent to the amortization of goodwill, but it does not aid us in determining whether the charge should be to surplus directly or to current profit and loss.[24] In spite of the writer's personal opinion that goodwill should not be amortized, a further discussion appears pertinent in view of the fact that there is disagreement on the question of the amortization of goodwill. In the opinions of Sherwood and Hornberger, and Greeley, goodwill should be amortized directly to a surplus account. Thus, Sherwood and Hornberger say that it should be written down through a "charge to Surplus, not operating expenses, as such a charge has nothing to do with the cost of producing the product, whatever that product may be."[25] On the other hand, Paton would handle the charge as a revenue charge. Thus, he has said that "in the case of purchased goodwill, patents, etc., the value of the intangible can be conceived as an investment in a series of excess incomes. From this point of view the amortization is logically a non-operating charge against a special earning. However, it would usually not be expedient to segregate the differential earnings definitely in the accounts, and therefore the amortization can again be handled as an expense or revenue charge."[26] The writer would agree with Paton that the charge should be to current profit and loss on operations. Depreciation of physical assets appears on the profit-and-loss statement as an operating expense. Paton has said that "depreciation is the cost of a fixed depreciable asset in the form of a charge to operation. That is, the first stage of such cost is that of a fixed asset; the second stage is that of a cost of operation."[27] Amortization of goodwill may be placed in the same category. Thus, the writer would say that "amortization of goodwill is the cost of a fixed intangible asset in the form of a charge to operation. That is, the first stage of such cost is that of a fixed intan-

[22] Of course, one must not presume that goodwill, as such, will always arise as a result of the consolidated balance sheet. In the case of "positive" goodwill there might have been an addition to other assets. In the case of "negative" goodwill the adjustments on the consolidated balance sheet working papers might have reduced or eliminated pre-existing goodwill or carried it as a surplus item.

[23] Fjeld, E. I., *ibid.*, p. 333.

[24] Of the fifty statements studied, in only four was any indication given as to the method of amortizing goodwill. In two of these cases (Remington-Rand, Inc., and National Dairy Products Corporation) the charge was to Capital Surplus; in one instance (The Procter and Gamble Company) the charge was to Earned Surplus; and in another case (Allis-Chalmers Mfg. Company) the amount of goodwill was reduced in the accounts through disposition of Treasury Stock.

[25] Sherwood, J. F. & Hornberger, D. J., *op. cit.*, p. 142. Also see Greeley, Harold Dudley, *Theory of Accounts*, Vol. I, The Ronald Press Company, New York, 1920, p. 410.

[26] Paton, W. A., *Accountants' Handbook*, p. 833.

[27] Paton, W. A., *ibid.*, p. 1108.

gible asset; the second stage is that of a cost of operation." It is therefore, suggested that when purchased goodwill is written off, "Amortization Expense" appear as an operating expense on the profit-and-loss statement for that period.

If nonpurchased goodwill is being amortized, a different procedure should be followed. Such a charge could hardly be classified as a cost of operation as there was no cost involved in the acquisition of such an item that had not previously been considered. Therefore the charge should be to a surplus account.

Some of the corporations that amortize purchased goodwill do not follow a rigid policy and are likely to amortize a large or small amount depending upon the ability of net profits to bear large or small charge-offs. Such a policy would necessitate that a portion of the charge be to current profit and loss and a portion to a surplus account. The profit-and-loss statement is intended as a statement of the operating expenses and income for a given period. It can readily be seen that only that portion of the abnormal amortization charge that can be considered as an expense for the period under review should be charged to current profit and loss. The balance of the charge should be to surplus.

It, at times, goodwill should be charged to surplus, the question arises, to which surplus account should the charge be made? It seems that the origin of the goodwill would govern whether or not the charge should be to Earned Surplus, Capital Surplus, or Revaluation Surplus.

Purchased goodwill that should be written off to a surplus account, as outlined in a previous paragraph, should be debited to earned surplus.[28] A firm that purchases goodwill expects to receive a series of excess incomes as a result of the purchase. This anticipated income will find its way into the profit-and-loss statement as the income is realized; and finally into the earned surplus through the closing of profit and loss thereto. No concern can expect such excess incomes without a certain cash outlay. Then, should not a portion of this cash outlay be balanced off against the realized excess incomes? Thus, it seems evident that if these realized excess incomes are closed to earned surplus, then the corresponding expense charges, regardless of when the amount is determined and taken into consideration, should be balanced off against the same account. In other words, indirectly the earned-surplus account is debited when amortization expense is charged to profit and loss as an operating expense; therefore, when charges of this kind are made directly to a surplus account, it should be to earned surplus.

A Committee of the American Institute of Accountants has defined revaluation surplus as the "appreciation recognized as arising from an appraisal of fixed assets."[29] According to this definition and since goodwill is a fixed asset, it is evident that when non-purchased goodwill is brought on the books the revaluation surplus account should be credited. Thus, it might be concluded that a "revaluation downward of fixed assets previously written up" would necessitate a debit to the revaluation-surplus account.[30]

[28] The writer recognizes the fact that not all accountants would classify surplus as shown above. Regardless of the classification or titles of the surplus accounts, the charge should be to the Surplus account into which current profit or loss is closed.

[29] Richardson, *op. cit.*, p. 119.

[30] George A. MacFarland and Robert D. Ayars, *Accounting Fundamentals* (New York: McGraw-Hill Book Co., Inc., 1936), p. 369.

"If appreciation has been recorded on the books, no matter under what title, it is proper to make write-downs against the account containing the appreciation to the amount of the appreciation included therein."—Raymond P. Marple, *Capital Surplus and Corporate Net Worth* (New York: The Ronald Press Co., 1936), p. 175. *Also see* p. 161 and pp. 117–118. See also Paton, *Accountants' Handbook*, p. 967.

ANNUAL FINANCIAL STATEMENTS OF GERMAN CORPORATIONS

Erich Kosiol

In line with the suggestions of the Committee on Corporation Law of the Academy of German Law, the new act of Jan. 30, 1937, relating to stocks has retained the anonymity which depends upon subsuming under one head many separate kinds of capital (Zusammenfassung vieler Einzelkapitalien), and to make up for the resulting personification has significantly strengthened the position of the administrative officers, so that the leadership notion which stands for authority and responsibility takes the place of the nonsensical [urteilslosen] majority principle. The direction of the company lies exclusively in the hands of the Management, which controls it (Par. 70, Sec. 1 and Par. 84, Sec. 1) in an orderly and conscientious manner, bearing full responsibility for the welfare of the enterprise and its employees and contributing to the common good of both the people and the Reich. The stockholders who up to now possessed the last word even on questions of business policy, at present exercise this power only on authorization by the management (Par. 103, Sec. 2). Whatever the opinions otherwise of stockholders on this matter, their importance is purely advisory and the management is not legally required to abide by them. The official text of the corporation law explicitly limits the scope of stockholders' power to questions involving the economic and legal structure of the company. Besides the cases mentioned individually in the law, the charter can withhold (Par. 103, Sec. 1) all matters of structure which extend beyond the current policy of the enterprise from the decision of the stockholders. Among such matters belong a substantial change of manufacturing process, organizational changes, large-scale investment of their own or others' capital, the definite opening up of new markets or of new prospects. The issuance of the annual report is on the other hand an important problem of the management.

It is therefore only the logical application of the leadership principle, to place upon the management, according to the established procedure of American law, the obligation of issuing the annual financial statements. The responsible head of the company doubtless has the best perspective on its position financially and otherwise, is best able to surmise future development and is therefore of all those interested the one most capable of blending objectively the justified claims of enterprise, employees, stock holders, creditors, and public. One of the most difficult tasks lies in the ascertainment of the profits to be distributed and to set the top limit on the payment of dividends.

To remove the danger of arbitrary action on the part of the management, the Board of Directors has been installed as a means of control. The management prepares the annual statements, and after examination by public accountants presents it to the Board of Directors (Par. 125, Sec. 1, 2), which must report back to the management concerning it (hierüber gegenüber dem Vorstand zu erklären hat). If the Board of Directors approves it, which will probably occur in most future cases, the decision concerning the closing of the accounts by the management and the Board of Directors has been reached (Par. 125, Sec. 3). The management cannot divorce itself from its basic duty of preparing the annual statements by referring the matter to the stockholders.

With this important new program of the corporation law, the management secures jurisdiction over many significant points. It is completely free in its accounting methods, within the limits set by law and the necessities of lucidity. Under its jurisdiction, although its decisions are always subject to approval by the Board of Directors, are placed the difficult problems of depreciation, revaluation, reserves and transfer to reserves, and therewith the whole reserve policy of the company. According to the pertinent law [nach geltendem Recht], it was at least controversial as to whether exclusive jurisdiction over depreciation allowance and transfer to reserve were given to the management, to the Board of Directors alone, or to both together. According to the corporation law, management and Board possess absolute power with regard to the final statements and are merely bound by their own sense of responsibility.

In view of this situation, Trumpler[1] raises the question of the claim of stockholders for the payment of dividends. The right of the stockholders to profits depends (Par. 52) on the actual results appearing in the annual statement and can be claimed insofar as these returns have not been excluded from distribution by law or charter. Therefore dividends can be withheld only where such limitation does not rest on arbitrary action by the management or Board of Directors, which indeed is incompatible with their responsibility as officers. The annual statement may be annulled on the ground (Par. 202) that it is not reconcilable with the nature of the company. However, the principle of this form of company is that stockholders contribute capital and receive in return a claim on part of the profits. It is to be seen that unity between management and Board of Directors opens up far-reaching possibilities of limiting the dividend. In view of the great need of numerous companies for financial consolidation, and of the wisdom in taking precaution to avoid future overcapacity, these opportunities will certainly be exploited to the full.

In this connection it is important to ask whether the management has the power to establish open reserves which seem necessary. If one recognizes the determination of the profit available for dividends as the *leitmotiv* of the annual closing of the accounts, then one discovers two possibilities of limiting the amount of profit to the amount available for distribution. As long as the meeting of the stockholders was the deciding instance in the final decision as to the annual statements, secret reserves were the only means available to the management to protect the company from the injurious claims on dividends of short-sighted stockholders. With this state of affairs, the permissiveness of extensive secret reserves was always recognized by the courts. But now that the decision upon the profit available for dividends has been put into the hands of the management and Board of Directors, the other means, i.e. creating the required reserves openly, can also be taken. No doubt the annual balance sheet would be much clarified by a complete abandonment of the up-to-now unavoidable form of secret reserves. After obstacles in the corporation law have been abolished, and opposition in this respect is no longer possible, one can voice the opinion that a policy of open reserves according to the principles of balance-sheet clarity and truthfulness will be demanded. Of course, there are still reasons for favoring secret reserves in the case of inventory and depreciation, in consideration of the possibility of their overstatement. Yet it should be the aim of the public accountant [Abschlussprüfer] to

[1] Trumpler, *Die Bilanz der Aktiengesellschaft*. Berlin, 1937. S. 261.

bring about a change in matters of the creation of reserves and to work for a greater degree of openness.

On the other hand, according to the new law, the rule of maximum value may be utilized to the utmost with little effort, in the case of losses, so that profits can be shown and made available for distribution. Here, too, a policy of open reserves would act as a brake and lead to sounder development.

The broad authority of management and Board of Directors can be satisfactory to the interested parties only as it is accompanied by increased responsibility. With good reason and in agreement with the Committee on Corporation Law, liability for the success of the enterprise was renounced and any obligation of indemnification made depending upon encumbrance (Par. 84, resp. 99) (die Ersatzpflicht wird von einem Verschulden abhängig gemacht). In return, the liability for violation of obligations to creditors was increased, and in harmony with the existing legal decision is henceforth, in virtue of the law of proof for discharge (Entlastungsbeweis) in actions for damages, laid upon the management and Board of Directors. The approval of the Board of Directors, and in matters with regard of creditors, a decision of the stockholders, does not free the management from the obligation of indemnification. The official text states explicitly that the denial of a guilty violation of duty—merely because of contradiction on part of the management or the stockholders—must be judged in individual cases according to the importance of the matter and the strength of existing legal and economic considerations.

Besides making claims to compensation, a suit of annulment can be brought against the final statement decided upon by the management and approved by the Board of Directors. Such action may also be taken outside of court, for example in the meeting of the stockholders. In order to create a safe and independent basis for the establishment of the annual statements as executed by the administration, and in particular to hold them aloof from all possible objections on the part of anyone else, the corporation law has excluded opposition in this case and has provided for annulment (Par. 202) only in the event of its most serious infringements.

Annulment of the annual statement takes place if it has not been subjected to the prescribed examination (Par. 135, Sec. 1). This provision is that this examination occur before submission of the balance sheet to the Board of Directors; but it does not eliminate the possibility of a previous understanding between the two bodies with regard to fundamental principles or individual points. Such intercommunication helps simplify business routine, and is in accordance with the duty of the management to make reports on important occasions (Par. 81). However, formal approval and validation of the statements can not take place until after examination and recognition of the report by the Board of Directors.

Annulment because of formal infractions due to failure of the Management and Board of Directors to coöperate properly may be rescinded afterwards by public notice (Par. 202, Sec. 1, Pt. 1). The time during which nullification on such grounds may be urged is limited.

Besides the lack of an examination the annulment is irrevocable and temporally unlimited as to real offenses (Par. 202, Sec. 1, #2 and 3), i.e., if the annual balance of account is not compatible with the nature of the company, or transgresses regulations which are entirely or predominantly for the protection of creditors or otherwise in the public interest, or if it violates good practice. Thus the authority of the management and Board of Di-

rectors to make decisions ceases at arbitrary infringement of important claims of the stockholder or of the rights of public creditors. Violations of good practice, according to the law, is to be referred to the ordinarily "materially unimportant" content—so the official argument says—and not to the determination of the statements. Practically, therefore, it will scarcely play a role.

The last tribunal before which the management must justify the annual statements in spite of approval by the Board of Directors is the meeting of the stockholders. There exists, of course, aside from actual grounds for annulment, no possibility of nullifying the statement. The meeting of the stockholders is bound explicitly (Par. 126, Sec. 3) to the annual balance prepared by the management and sanctioned by the Board. The statement assumes the character of a report by the management as to the result of its administration. In connection with the negotiation for approval, the statement in its entirety can be made the object of penetrating discussion.

Of importance is the fundamental reorganization of the until now hotly disputed rights of stockholders with regard to information (Par. 112). Every stockholder may, independently of authorization through resolution by the stockholders, question the administration directly regarding the annual statement that is placed before the meeting for its approval. The relations to any other enterprise are explicitly mentioned as open for discussion. Management and Board of Directors have to give the information according to the principles of conscientious and loyal administration and cannot conceal the true state of affairs behind empty subterfuge or purely formal reply. Solely for higher justified interests of the company, of an affiliated company or of the nation, a special protective clause has been created (Par. 112, Sec. 3) against the individual stockholder; but the misuse of said clause can always be contested. In addition, the meeting of the stockholders may order special auditors (Par. 118), since the annual financial statements fall within the province of administration.

Insofar as the stockholders on the basis of information received or as a result of the special audit does not agree with the annual statement and in particular fears the future policy in matters concerning the annual statements, it may not only refuse its approval and bring suit for damages but may also withdraw its confidence in the management. Herewith according to the law (Par. 75, 3) an important reason for the recall of the management or some of its members by the Board of Directors is given. Correspondingly (Par. 87) recall from the Board of Directors is also possible. Practically, the meeting of the stockholders would adopt such drastic measures only in the most serious cases, in which gross violation of duty or ignorance of orderly business administration was shown. At any rate, it is fundamentally important that the broad independence of the management and the Board of Directors be bound by a responsibility towards the stockholders which can hardly be made more severe.

In only two exceptional cases, may the stockholders alter the annual report according to the corporation law. If the Board of Directors should not ratify the report submitted by the Management, or if these two bodies decide to place the responsibility upon the stockholders, settlement ensues on the passing of a resolution by the stock holders (Par. 125, Sec. 4), as under the previous law. Thus the declaration of the Board of Directors (Par. 125, Sec. 2) may consist in either endorsement or nonendorsement of the annual report. Should the Board of Directors approve the report, two roads can be taken: in general,

the annual report is therewith settled, and only if management and Board of Directors decide jointly responsibility rests with the meeting of the stockholders. It is supposed in all cases that auditing has taken place before submission of the report to the Board of Directors.

Zimmermann[2] is of the opinion that on nonratification the management would be able next to take account of the suggestions of the Board of Directors and to alter the annual report. This new report which would again have to be checked by the auditors would once more be subject to the pronouncement of the Board of Directors. His formulation contains a contradiction to the stipulation of the law according to which the management must convene the meeting of the stockholders without delay. What Zimmermann has in mind is the possibility of reciprocal understanding arising in the course of business between the management and the Board of Directors about conceptions of the latter, which are purposefully carried through during the drawing up or examination of the report. On the other hand a declaration by the Board of Directors of nonratification is final, if in its hands are both the annual report and the auditor's statement.

Besides the two cases mentioned, namely difference of opinion or joint consent of management and Board of Directors, the meeting of the stockholders possesses the exclusive right of decision on the annual statement only in such special cases as retroactive reduction of capital (Par. 188), an associated increase of capital (Par. 189), a liquidation of the company (Par. 211) and, as a rule, partnership on stock.

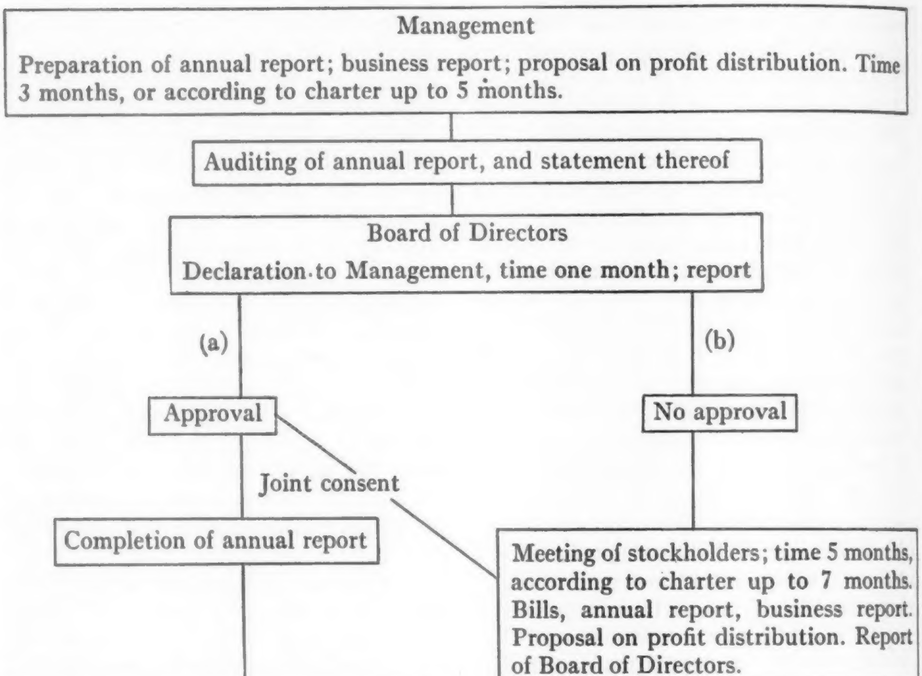
According to the corporation law, the establishment of the annual report cannot be divided. It is not possible for the stockholders to settle one part and the Board of Directors and management another. by the compulsory subdivision into two parts, for the establishment of the report all contrary charter injunctions are invalidated. Establishment of the report occurs either jointly by the Board of Directors and Management or by the meeting of the stockholders alone. The responsibility of establishing depreciation write-off and reserve transfer may no longer be assigned by the charter to the management alone or with the Board of Directors. Decision rests in the hands either of management and Board of Directors or the stockholders exclusively. The Board of Directors alone can not be considered, anyway, because such activity lies outside its sphere of functions.

Following is a schematic presentation of the process of approving the annual report:

The former laws concerning the interpretation of bills and granting of copies were taken over in the new corporation law. Negotiation is to be postponed if the stockholders so resolve by a bare majority vote. If the motion to prorogue is based on the criticism of specific items in the annual report (Par. 125, Sec. 7, #3), it is to be carried if it is put by a 10% minority of capital stock (Grundkapital), no resolution being required, or if on voting the same minority is attained. The opinion[3] that the vote should not be made equal to a demand, can not be shared since it could not be known whether the voters joined in the criticisms of the makers of the motion. First, the flaws are to be raised separately by motion and explained, so that the qualified vote is fully equivalent to the original demand. Then however, in case of demand one cannot know whether each maker of the motion adheres to the criticism or only to the demand for postponement. This formal difficulty may

[2] *Der Wirtschaftstreuhänder*, 1937, S. 133.

[3] Compare Staub's *Kommentar*, 14 Aufl., 2. Bd., Par. 264, Anm. 1a, S. 649.



be avoided through clear and unambiguous formulation of the motion.

The extension of criticism to items of the annual report is new in the corporation law. Hitherto criticism was limited to disputes over valuation, and questions on composition were left open. From now on every accurately delineated criticism which refers to definite items of the balance sheet or profit-and-loss statement is permissible. Therefore, it may also concern items which are incomprehensible, incorrectly classified, incompletely specified, or missing. According to the corporation law, an objection to undoubtedly correct items of the annual report is not permitted in view of the impugnment of the administration.

Postponement might occur, according to the previous law, only insofar as definite statements were criticised, so that it was possible further to discuss and decide other points of the annual report, in some circumstances also the distribution of profits and even approval, especially when objections were slight on these matters.

According to the new corporation law, postponement must occur if objection is raised. The recognized principle, which has been acknowledged in the past, that delay of the annual report involves delay in the distribution of profit has become a standard. The deliberations over all three matters (Par. 125 Sec. 7, #1, Par. 104, Sec 2, #1) form a unity, so that they cannot be decided upon independently of each other. Decision on the annual report, in particular by the meeting of the stockholders is the basis for distribution of profit and approval. In view of the difficulty of carefully judging in the meeting of the stockholders the effect of unfavorably criticised items with respect to profit or of judging the policy of the management, and in view of the possibilities of disputes thus created, this combination of the annual report, distribution of profit, and approval is an improvement in the technique of settlement.

In connection with the above stands the new rule that a second postponement cannot be demanded by a minority, but may however be decided upon by a majority. Postponement which has been possible because of insufficient clarification, has now become superfluous through the duty of the management to render information freely.

In contrast to the common law, the corporation law distinguishes between contestability and annulment of decisions of the stockholders. Although both are raised with the same goal in mind, and lead, if successful, to the same result, i.e., nullification of the report, there still exists an important difference between them. Action for annulment may be brought by anyone with a legitimate interest, and is basically without temporal restriction, while in case of contest only a legitimate circle of persons is authorized, and the time is limited. To prepare a firm basis for administration of justice and to remove the uncertainty of corporations about the legal position of resolutions of stockholders, the corporation law has chosen a clear middle way, in view of the contradictory reform proposals. In particular, annulment cannot be waived according to the official text, because its removal would lead to the disregard of entire legal stipulations by the stockholders if the stockholders were unanimous or no one brought a contesting suit.

Until now annulment was not authorized by legal stipulation and could be achieved only by means of a suit against the report (Par. 256, ZPO). There now appears an entirely new kind of action for annulment against the company, similar to the former suit of protest (Par. 201) which can be taken only by a stockholder, the management, or individual members of the executive body or the Board of Directors. Besides, action for annulment can either be brought in the form of an objection or outside of legal procedure.

The reasons for annulment are listed exhaustively in Par. 195. Besides formal defects in convocation (Par. 105, 1, 2), verification (Par. 111, 1, 2, 4), repeal (Löschung) (Par. 144, 2FGG), the same material reasons for annulment may be advanced for resolutions on the annual balance sheet as they exist in its establishment by the management and the Board of Directors. On the other hand, the possibility of restoration of a void annual report based upon the resolution of the meeting of the stockholders is considerably increased. Defects of verification are rectified by entering the resolution in the commercial register, defects, of convocation and material nullification not until after three years after entry. In contrast, failure to audit the report is nonrestorable in every case.

The right to contest has passed from the common law in its principles also into the corporation law. To the former reasons for

contesting the report, i.e., "violation of a law or by-law," the prosecution for seeking special advantages harmful to the enterprise by suffrage was added in Par. 197, 2 which forms a necessary addition to Par. 101, 7—unless the steps taken should serve a purpose worthy of protection as, for example, interest of the entire trust. According to the law, the contesting of occurrences such as oppressing or defrauding the minority had to be stipulated, for up to the present they were made the basis for actions for amendment without being able to be proved. In place of Par. 261 HGB was put Par. 197, Sec. 3, according to which the resolution to establish the report can only be contested because of violation of the rules governing composition, if the statement contains significant impairment of clarity and lucidity. Up to now, this action could not be taken at all.

The active legitimation necessary for contesting action is regulated in Par. 198, essentially following the common law. It is to be noted that the newly introduced ground for contesting in case of endangering justified interests of the company or of stockholders may be maintained by any stockholder, without having declared opposition to the minutes. In particular, to contest depreciation, correction of transfers to reserves or reserves which are unlawful by law or charter, a 5% minority is required. Bail can be arranged only if claim for compensation of the company against the suing stockholder can be made credible. Important for the practical handling of contesting suits is the rule, different from the Civil Procedure Code, that the value of the matter in dispute is to be determined according to the general conditions with respect to the interest of the company. The liability of compensation for an unfounded contest has been notably increased in Par. 202, Sec. 2 in order to discourage irresponsible lawsuits. Malevolent action is no longer presumed, but mere intention or gross negligence suffices to establish action for liability.

The innovations which the corporation law introduced also for the establishment of the annual report by resolution of the meeting of the stockholders as well as the superiority accorded any establishment of a report by the management and Board of Directors are borne entirely by this leading idea, i.e., to bring constancy and surety into any resolution carried to make a sense of duty and responsibility the focal point in any decision, to place first the weal of all employees, and to safeguard the act of freeing the report from all special interests, struggles for power and intrigues.

The explicit will of the legislation according to the official test is to prescribe the establishment of the annual report by the management and Board of Directors as *the* fundamental form. Contrary stipulations of the bylaws violate the prevailing statute and are therefore null. Bylaws may, however, prescribe definite principles within the limits set by law, with respect to more rigorous valuation, bases for depreciation, minimum depreciation without consideration of decrease of value or the formation of voluntary or higher legal reserves. In general then, the meeting of the stockholders and the management with the Board of Directors are committed to them on ratifying the annual report. Bylaw stipulations are possible which refer only to the establishment of the annual report by the meeting of the stockholders, if, e.g., resolution of deviation from proposals of the Board of Directors are permitted only with qualified majority.

The success of the new regulations will depend on how strongly a clarified economic concept and the true spirit of the "Führer" idea are carried into practice. Disturbances are conceivable in two directions.

The danger that the management will attempt to pass on its increased responsibility to the meeting of the stockholders is not great, in view of the urgent desire of the management for an assured position of leadership. However, insofar as the management does strive to secure nonratification, as inferred from the nature and content of its proposals submitted to the Board of Directors, a greater responsibility is placed upon them, which in serious cases must lead to the recall of the management. It is to be noted that such cowardice in management responsibility is, according to the spirit of the corporation law, incompatible with the nature of the corporation. If in the case of serious decisions the management and Board of Directors, in full consciousness of unaccepted responsibility, decide in favor of deferring the annual report to the meeting of the stockholders, such action lies indeed within the desire of the legislators. Besides the introductory section of this new corporation law permits executives to ask for the cancellation of their long-term contracts.

A further danger of evasion lies in the possibility of an attempt by the meeting of the stockholders or a large stockholder to influence the report through a compliant board of directors by extorting a fundamental nonapproval *de facto*. In such a case the "Entsendungsrecht"[4]—never before written into any corporate statute—may play a role (Par. 88) if this privilege is given to a share made out in the name of the stockholder and whose transfer must be granted by the company; a misuse is considerably restricted by the liability for damages (Par. 101). If such intrigues merely serve to reserve the formulation of the annual report for the meeting of the stockholders it will be quite difficult in an individual case to use Par. 101 against them, because of lack of demonstrable injury to the company. The practicable means remaining to the restricted management are either suit for annulment (Par. 195, #3) under appeal to the public interest, protection of creditors; and finally either incompatibility with the nature of the corporation, or a contesting suit (Par. 198, Sec. 1, #4, 5).

It will be the task of the administration of justice decisively to influence development by clear decisions, and to set up norms for judging such border cases.

[4] The by-laws of the corporation grant to certain stockholders the privilege of choosing one member of the Board of Directors. If this privilege has been granted to several stockholders, the number of directors thus chosen may not exceed one-third of the entire board. Such privileged shares may also bear the name of the stockholder with the understanding that any transfer is to be judged by the company (gebunden). This paragraph was written into the new law in order to overcome the desire of any third person to take possession of the company for mere exploitation.

A SUGGESTED PROGRAM OF EDUCATION FOR THE ACCOUNTANT

(*Based upon the Report of the Committee on Education of the American Accounting Association*)

HERMAN C. MILLER

THE 1937 committee on education of the American Accounting Association undertook the task of developing the details of a program providing 60 hours of technical training for the profession of accountancy. It was intended to correlate this program as nearly as possible with the report of the committee on education of the American Institute of Accountants.[1]

[1] American Institute of Accountants, *Year Book 1936*, p. 440.

Recognizing the desirability of a flexible program which might be suitable for the various types and conditions of educational institutions, the report of the committee[2] incorporates three separate and distinct programs which should be considered together as one general program with boundary limits established. These are designated as follows:

1. The recommended program.
2. The minimum program.
3. The maximum program.

In this connection the terms minimum and maximum are used to indicate the amount of concentration in business and accounting subjects. The report of the committee thus covers a rather broad band of concentration varying from 33 hours to 87 hours out of a total of 120 hours usually required for graduation. The recommended program, in conformity with the report of the A.I.A. committee on education, provides exactly 60 hours of business and accounting concentration. Absolute agreement, upon any one specific program will be difficult if not impossible to attain. It is hoped however that somewhere within the rather broad band of hours in business and accounting education proposed here, all educators interested in training students for the profession of public accountancy may find it possible to visualize a curriculum acceptable to them and to their respective institutions. Furthermore, it is hoped that practitioners, with professional viewpoint, may find it possible to accept curriculae which may lie within the broad limits suggested here as a foundation education for young men whom they would be glad to employ as staff accountants. It may be expected that as time passes on the trend in education for professional accountants will be somewhat in the direction of increased minimum standards. Thus the proposal made by the committee should be considered not as a final piece of work but rather as a point for departure in further studies of this problem. Educators, experienced in building college curriculae, will of course understand this.

This program, identified by minimum and maximum limits with recommended medium, should *under no circumstance be confused with any program designed to prepare the rank and file of students for so-called general business, for special fields such as marketing, banking, or accounting in private or public enterprises.* The program submitted here is *only* for those students intending to engage in public accounting work.

Progressive education tends to move away from separate formal course studies and towards an integration of the students' intellectual activity in various fields. We can find examples of this in the preparatory school which have adopted the ideals of progressive education. Subjects offered are designated the "core course" or "unified studies." In such a class, the students' minds are not treated as though divided into several water tight compartments, one of which is filled with the fluid which educators have in the past called English or Grammar, another filled with a fluid known generally as Arithmetic or Mathematics, and still another filled with a fluid known as Science. It is now recognized that the development of the students' intellectual capacity is greatly accelerated by combining or at least allowing an interplay of mental activity in as many fields as the student is capable of exploring at one time. Thus it is said there is no reason why good English or Grammar may not be taught along with Mathematics and Science.

If the ideals of progressive education are sound, it would seem desirable to avoid building a program of study for the profession of accounting which would follow too closely older patterns, which even now

[2] See following pages.

may be ready for the scrap heap. It is suggested that the former seclusion of the law school has been invaded with the recommendation that law students blend with their professional studies, electives in business, social sciences, and philosophy. Thus while studying law the student would have an opportunity to consider the social and economic aspects of questions which may have been too frequently decided in the past strictly upon precedent, legal rule, or strict interpretation of the written word.

Should we not, therefore, build for the future of the accountancy profession by recommending and providing an educational program which would furnish the admixture of liberal or general education with professional training? This need not lower the total requirements as to years, credit hours, or subjects, but would give the student greater benefit through a more deliberate consideration of professional studies, and through a coordination of those studies with the liberal or general studies. Many educators are firm believers in the value of "unconscious cerebration," which may develop in the periods between class meetings. A slowing up of the process of technical training by thus blending it with liberal subjects would doubtless inure to the better understanding by the student. Thus, the graduate who shall have completed such a program will not have received training purely as a technician but a broad and liberal education in which an understanding of professional technique will be rooted deep in an appreciation of the broader social significances of his profession. Accountancy education fits particularly into the aims and objectives of educators generally. It is not a field for the student seeking to learn techniques. It is not a field for the student whose educational success depends alone upon a good memory, or dogged persistence. It is a field for stimulation of intellectual activity of the highest order. Reasoning, logical thinking, and analytical understanding are the powers which must be developed if the student is to succeed in accountancy studies. Why then should anyone of us admit that only the liberal studies will develop the mental powers of the student? It is not impossible to visualize accounting studies wherein the student finds a need for pursuing literature as a means of expressing the reasoning which he has developed in a solution to an accounting problem. Indeed, a study of literature in such a connection would give a touch of realism to literature which otherwise might be treated as a purely academic undertaking. Likewise there can and must be a similar correlation of accounting studies with other general educational courses—particularly courses such as history, languages, mathematics, natural sciences, philosophy, political science psychology, and sociology. The accountant who cannot see the pronounced relationship of his profession to these studies is indeed a narrowly trained technician. The accountant who can see the excellent educational benefits of an admixture of an accounting and business training with these studies must indeed have a broad understanding not only of the far reaching significance of his profession but also of the highest kind of educational objective—stimulation of intellectual activity.

It is difficult to conceive of a qualified practitioner of public accounting who is not vitally interested in the problems of government embracing public finance and budgets, taxes, regulation and control of business in many details, or of social administration through agencies for welfare, charity, and other philanthropies, or of scientific researches and experiments in the many sides of industrial organizations dependent upon the daily work of the natural scientist, or in the philosopher's field of logic, ethics, and metaphysics as it

deals with the analyses of human experiences, or in the historical background of present day civilization as a guide for future conduct and planning, or in the beauties of art, literature, and music. The practitioner of public accounting must have interest in all of these and other fields for he must be prepared to meet the questions and problems arising in many different activities wherein capacity for understanding and appreciation must have opportunity for expression. Yet it is not only directly related to the ordinary work of the practitioner in much of his daily contact with clients. Even more important is the personality side of the story, i.e. the refinement of character, and the breadth of viewpoint, and the scholarly attitude in controversial matters, and the active interests in life and living. Fortunate are the practitioners who view life in their profession as a great experience touching every phase of human understanding and enjoyment. Fortunate is the profession which so trains its younger members for such a view of life. Fortunate will be society which may point with pride to such a profession.

The recommended program developed by the committee has been limited by the original recommendation of the American Institute's committee—i.e. a 4 year program devoted 50% (60 hours) to professional studies. The minimum program is adaptable to a longer period of collegiate work, if desired, but only provides the details for the first four years. Additional years would doubtless be devoted to a larger proportion of professional studies. The maximum program is also adaptable to a longer period of collegiate work, if desired, but only provides the details for four years. Additional years would doubtless be devoted to a larger proportion of liberal studies. It is entirely possible that such additional years of collegiate work might either precede or follow the four years of work outlined in this (maximum) program.

In addition to the work outlined in the committee's report, and even more important, there is a need for some work done strictly on the graduate level in the professional field. This suggestion is predicated upon the conviction that a larger part of the more significant work of the public accountant is of a research character. The successful public accountant must, therefore, be familiar with research methods. He must be capable of carrying forward, upon his own initiative, independent studies in the various phases of business, financial, economic and social enterprises with which he is in daily contact. For this reason, it is believed that any development of educational standards for training successful professional accountants cannot properly be considered as complete in any sense unless graduate level work has also been developed. The committee has not undertaken to develop standards or criteria for acceptable scholarship in this area of education. It should not be overlooked. May we expect further attention to this phase of professional training by educators and practitioners alike?

SYLLABUS OF COLLEGE PREPARATION FOR ACCOUNTANCY

It is the purpose of this syllabus to present an outline of the content of what the Commitee considers a fair, average college preparation for a career in accounting. In order to provide reasonable standards to cover situations wherein more or less concentration on accounting and business subjects is desired than that provided in the recommended program, two other programs are included; one strongly emphasizes liberal arts subjects and minimizes accounting while the other strongly stresses accounting and minimizes liberal arts subjects.

Following the outline of courses is a brief description of each course specifically mentioned.

Recommended Program

(Average concentration in business and accounting)

	Semester Hours	
Liberal Arts subjects		60
Business subjects	21	
Accounting	39	60
		120

For the recommended program the total work for four years is so divided that half will be in general education and half in special education.

A further subdivision of the program shows the following details.

Liberal Arts Subjects:			
English composition and literature, foreign languages, physical sciences, mathematics, social sciences (except economics)		48	
Social Economics:			
Economic principles	6		
Money, Credit and Banking	3		
Public finance	3	12	60
Business Subjects in:			
Principles of Administration			
—Financial management		3	
—Production management		3	
—Marketing management		3	
Analytical Training			
—Investment analysis		3	
—Business statistics		3	
Business Law			
—Principles of business law		6	21
Accounting Subjects:			
Elementary		6	
Intermediate		6	
Costs		6	
Statement analysis		3	
Managerial accounting		3	
Auditing		5	
Accounting systems		3	
Tax accounting		3	
C.P.A. problems		4	39
Total			120

Minimum Program*

(Less than usual concentration in business and accounting)

	Semester Hours	
Liberal Arts subjects		87
Business subjects	9	
Accounting	24	33
Total		120

In this program a little more than one fourth of the work is special education and three fourths general education.

Liberal Arts Subjects:			
General courses (as in recommended program)		78	
Social economics:			
Economic principles	6		
Money, Credit and Banking	3	9	87
Business Subjects in:			
Principles of Administration			
—Financial management (or corporation finance)		3	
Analytical Training			
—Business Statistics		3	
Business Law			
—Contracts		3	9

* Graduates from this program should expect to do additional work privately in accounting and business for adequate preparation to enter the profession.

Accounting Subjects:

Elementary	6	
Intermediate	3	
Costs	6	
Auditing	3	
C.P.A. problems	3	
Tax accounting	3	24
Total		120

Note: Intermediate accounting in this program probably should include something on statement analysis. Some of the time assigned to Costs could easily be transferred to Auditing or C.P.A. Problems.

MAXIMUM PROGRAM*

(More than usual concentration in business and accounting)

		Semester Hours
Liberal Arts subjects		33
Business subjects	39	
Accounting	48	87
Total		120

Here the emphasis is just the reverse of that given in the minimum program.

Liberal Arts Subjects:

General courses (as in recommended program)		18	
Social economics:			
Economic principles	6		
Money, Credit and Banking	3		
Public finance	3		
Government control of business	3	15	33

Business Subjects in:

Principles of Administration		
—Financial management	3	
—Production management	3	
—Marketing management	3	
—Personnel management	3	
—Credit management	3	
—Corporate reorganizations	3	
Analytical Training		
—Investment analysis	3	
—Business statistics	3	
—Business Cycles	3	
Business Law		
—Principles of Business Law	6	
—Law of commercial enterprises	3	
—Administrative law (exclusive of income tax)	3	39

* Graduates from this program would probably be convinced in later years that more work in general subjects would have been beneficial.

Accounting Subjects:

Elementary	6	
Intermediate	6	
Costs	6	
Statement analysis	3	
Managerial accounting	3	
Auditing	5	
Accounting Systems	3	
Tax accounting	6	
Specialized accounting	4	
C.P.A. problems	6	48
Total		120

COURSES IN SOCIAL ECONOMICS

Economic Principles

Factors controlling the production, distribution, and consumption of wealth; forces which determine value and price; social problems of money, foreign exchange, taxation, industrial concentration, labor and unemployment; brief examination of proposals for economic reform.

Money, Credit and Banking

Functions of money in economic society, nature of credit, role of interest in industry, stabilization of prices; function and internal operations of banks, relation of banks to the monetary and credit system, methods of granting credits, foreign exchange operations.

Public Finance

Nature of expenditures and revenues of governmental units, revenue systems and varieties of taxation; just methods of levy, incidence and shifting of taxes, emergency financing, public's interest in governmental indebtedness.

Governmental Control over Business

Theory of *laissez-faire* and non-interference; conditions disrupting the operation of the theory; types and purposes of governmental controls, monopoly regulation, restraints on competitive practices, regulation of commodity production, wage legislation.

COURSES IN BUSINESS

Financial Management

Varieties of financial structure in industry, defects in financial structure; analysis and control of work capital, influences of business conditions on financial operations and budget; sources of capital, varieties of securities, regulation of securities by stock exchanges and Securities and Exchange Commission; dividend policies.

Production Management

Plant location, design and construction; internal organization for operations; production control, stores control, routing materials, job analysis, time studies, wage system; subdivision of executive responsibilities and duties, methods of co-ordination and planning.

Marketing Management

Marketing functions, diversity of marketing methods; price factors and pricing policies; market research, sales analysis and forecasting; ethics of buying and selling.

Personnel Management

Relation of human elements to productivity; instincts and emotions in industry; art of securing understanding and coöperation; employee organizations and outside activities, work of the personnel department; bargaining methods, wage standards and working conditions; industrial relations with others than employees.

Investment Analysis

Factors which make for sound investments; varieties of security contracts, characteristics of different types of investments; tests for safety of principle and adequacy of earning power; factual and critical analyses of financial statements.

Credit Management

Managerial policies in extension of credit, methods of effecting collections, and of making adjustments. Correspondence and office management. *Note:* Interpretative phase of accounting will not be dealt with in this course since Accounting Statement Analysis will have preceded Credit Management.

Business Statistics

Usefulness of statistics in the interpretation of conditions external to the enterprise; types and sources of data, variations in the significance of data; methods of analyzing factual materials, tabulation, frequency distributions, averages, index numbers, seasonal variations, trends, charts and graphs; interpretation of specific statistical exhibits.

Business Cycles

Variations of specific statistical series through typical cyclical movements; significance and interrelation of changes in different series; theory of economic movement; business forecasting, budgets and planning.

Corporate Reorganizations

(*Note:* Where both Financial Management and Corporate Reorganizations are given, it may be well to stress working capital finance in the former and financial structure in the latter.)

Organizing and promoting; types of financial structure, variations in characteristics of securities; expansion by reinvestment and by new capital; recapitalization in expansion and in depression; receivership and reorganizations, mergers and consolidations; holding company regulation.

Law of Contracts

Legal principles underlying commercial relations; essential elements of contracts, offer, acceptance, capacity of parties, statute of frauds, assignments.

Principles of Business Law

Legal relations of business men; emphasis on the law of contracts and negotiable instruments; salient features of the law of agency, sales, personal property, bankruptcy, security relations.

Law of Commercial Enterprises

Legal aspects of partnerships and corporations especially the latter in regard to capital and dividends; business trusts, holding companies.

Administrative Law

Accountants' duties and reports under the statutes and regulations of various governmental commissions; capital stock taxes, the issue of new securities, social security taxes, quantity discounts, income tax appeals, utility and holding company reports.

Courses in Accounting

Elementary Accounting (six semester hours)

The significance and usefulness of accounting; the theory of debit and credit; methods of collecting and summarizing financial data through the use of books of original entry including multicolumn journals and controlling accounts; accounting for sole proprietorships, partnerships, and corporations; preparation of statements; preliminary consideration of the problems of valuation and of statement analysis.

Intermediate Accounting (six semester hours)

(For recommended and maximum programs)

Statement making with careful consideration of the problems of valuation and of detailed classification; special applications of accounting principles to peculiar types of enterprises embracing such subjects as consignment sales, instalment sales, branch house operation, mergers and consolidations, holding companies, and fiduciary accounts for receiverships, liquidations, estates and trusts.

Intermediate Accounting (three semester hours)
(For minimum program)

Statement making with brief consideration of the problems of valuation and of detailed classification; introduction to interpretative accounting; preliminary consideration of special applications of accounting principles to peculiar types of enterprises. Simple problems of instalment sales, consolidated balance sheets and fiduciaries.

Cost Accounting (six semester hours)

Accumulation of material and labor costs; factory burden and its allocation; systems of job cost, process cost, estimated or pre-determined cost, and standard cost; cost reports to executives—preparation and uses.

Statement Analysis (three semester hours)

Preparation of statement of variation in net profit, and of statement of funds—sources and disposition; significant financial and operating ratios; practice materials based upon published reports of leading industrial, commercial, financial, and public service corporations and organizations.

Managerial Accounting (three semester hours)

Use of accounting and statistical data in the protection, control, planning, and coordination of business. Standards and budgetary procedure.

Auditing (five semester hours)
(For recommended and maximum programs)

Auditors' professional and legal responsibilities; ethics of the profession of accountancy. Scope and nature of various kinds of audits; the development of an audit program; application of verification procedures to balance sheet and profit and loss items; the audit report and the auditor's certification.

Auditing (three semester hours)
(For minimum program)

Same topics as above for recommended and maximum programs. Less time will be devoted to application of verification procedures and to the audit report and auditor's certification. These topics will be treated as in a survey course.

Accounting Systems (three semester hours)

Various methods of accumulating data concerning sales, purchases, expenses, financial transactions, inventories, etc., with special consideration of their adaptability to peculiar needs of the activity; uses of mechanical aids; relative costs and usefulness of information developed under alternative methods.

Tax Accounting (three semester hours)
(For recommended and minimum programs)

Outline study of Federal income tax law and regulations. Gross income, deductions, net income, credit against net income, computation of tax. Application to simple problems of individual and corporation. Preparation of informational returns by partnership, fiduciaries and others. Brief consideration of state system of taxation.

Tax Accounting (six semester hours)
(For maximum program)

Same topics as above for recommended and minimum programs. In addition there will be included the following topics: Federal capital stock and estate taxes; state sales and inheritance taxes; Federal income tax practice including the handling of claims before the U. S. Treasury Department, pleading before the U. S. Board of Tax Appeals and the preparation of briefs therefor.

Specialized Accounting (four semester hours)
(For maximum program)

Elective courses to be offered in fields such as stock brokerage; municipal; public utility; hospital, social service and charitable organizations; and other specialized activities.

C.P.A. Problems (recommended four, minimum three, maximum six semester hours)

A problem course intended to give the senior student practice in the application to new and special situations of all of the various accounting principles and methods developed in preceding courses. Materials taken exclusively from the C.P.A. examinations.

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE PROBLEMS which follow were prepared by the Board of Examiners of the American Institute of Accountants and used by the many coöperating States in the examinations held on May 12th and 13th. The examination in accounting theory and practice is divided into two parts and the first part of this examination is presented here.

The examinee was required to solve in five hours problem 1, either problem 2 or 3, and problem 4. The weight given to the problems is as follows: problem 1, 15 points; problems 2 and 3, 25 points; problem 4, 60 points. The following time schedule is offered as an aid to those interested in solving the problems:

Problem	*Required time in minutes*
1	45
2	45
3	45
4	135

No. 1:

(a) The Acme Manufacturing Corporation uses a process-cost system; manufacturing costs, other than direct materials and direct labor, are applied to the product in an amount equal to 50% of the direct labor cost and, per contra, are credited to an account, "indirect costs absorbed." The books were closed as of December 31, 1937 when the inventory of goods in process in Process A consisted of 1,000 units of product as follows:

Direct material content (100% complete)	$5,000
Direct labor content (average 50% complete)	2,000
Indirect cost (at 50% of direct labor costs)	1,000
Total	$8,000

In January, 1938, 10,000 additional units of product were started; material requirements in full were issued at a cost of $51,000; direct labor amounted to $39,900; indirect cost was applied at 50% of the direct labor cost; 9,000 units were completed and transferred to the next process; 2,000 units remained in process on January 31st with material fully supplied and labor averaging 50% complete.

Set up a goods-in-process account for Process A showing total and unit material labor and indirect costs for units completed and for units in process at end.

(b) The books were not closed on January 31st, and after the transfer of completed units was made it was discovered that indirect costs in January, 1938, and in prior periods were actually 60% of direct labor cost.

Prepare the correcting journal entry.

No. 2:

John Jones died September 30, 1936, leaving a will and appointing three executors to administer his estate. The will provided for the payment of funeral expenses, debts, and other necessary expenses, and for the following specific bequests:

Cemetery, for upkeep of burial plot	$ 2,500
Hospital	2,000
Church	5,000
Relative	10,000
Executors ($5,000 each in lieu of fees)	15,000
	$34,500

The balance of the estate was to be held in trust and the income thereof was to be paid in equal shares to the three children of the testator during their natural lives. The first distribution from income was to be made December 31, 1937. On the death of each of the life beneficiaries, the proportionate part of the estate as at that

date was to revert to that beneficiary's issue surviving, if any; otherwise to remain in trust.

At date of death the testator was possessed of the following: cash, $25,000; accounts receivable, $55,000; 5½% first mortgage bonds, interest June 30th and December 31st, par value and appraised value, $100,000; U. S. 2¾% Treasury bonds, interest May 15th and November 15th, par value and appraised value, $50,000; 1,000 shares A Mining Company stock, par value $5 per share, appraised as valueless; 1,000 shares B Industries, Inc. stock, par value $100, appraised at $110; clothing $1,000, jewelry, $5,000; furniture, $10,000.

Receipts:

November 15, 1936, $40,000 U. S. Treasury bonds sold at $102; accounts receivable collected, $50,000 (balance worthless); dividends on B Industries, Inc. declared prior, but paid subsequent to death of testator, $4,000; dividend of same company declared and paid subsequent to death of testator, $2,000; furniture sold for $9,000; A Mining Company stock sold at 25 cents per share; bank interest earned after death, $1,250; refund of Federal taxes, year 1935, $500. All interest collected on investments.

Disbursements:

Funeral expenses, $2,500; administration expenses (chargeable to corpus), $8,000; legal services, $3,000; debts of testator, $15,000; 1936 Federal and state taxes to date of death, $3,100; all specific bequests paid, relative taking jewelry at appraised value against bequest of $10,000.

Other transactions:

Clothing given to charity.

Prepare as of November 30, 1937, (a) summary statement of executors as to principal, showing assets remaining in the estate; (b) summary statement of executors as to income.

Note 1.—For purposes of this problem ignore the factors of inheritance, transfer and other taxes not specified in problem.

Note 2.—Attach all working papers to your solution.

No. 3:

The following appraisal was made of the plant and equipment of the Hopewell Company as at December 31, 1936:

Classification	*Reproduction value—new*	*Accrued depreciation*	*Sound value*	*Depreciation rates*
Land	$ 250,000		$250,000	
Buildings	530,000	$35,000	495,000	2%
Machinery—A	100,000	10,000	90,000	6%
" —B	80,000	10,000	70,000	8%
Special tools	30,000	6,000	24,000	10%
Furniture, etc.	43,000	8,000	35,000	12½%
Trucks and autos	42,000	12,000	30,000	20%
Together	$1,075,000	$81,000	$994,000	

The appraisal was formally accepted by the company and the bookkeeper was instructed to make the necessary adjustments on the books as of the above date, at the same time setting up depreciation reserves. Thereafter depreciation was to be provided at the new rates by straight-line methods but, as heretofore, on the year's additions and retirements at one half of the annual rates.

In the course of the audit of the 1937 accounts the auditor was given the following analysis of the property accounts, prepared by the bookkeeper:

Classification	*Dec. 31, '36 Net balance before adj't.*	*Adj'mt to appraisal Dr. Cr.**	*1937 Add'l'ns or Retirem'ts* (gross)*	*1937 Depre-ciation*	*Balance Dec. 31, 1937*
Land	$ 210,000	$ 40,000	$30,000*		$220,000
Buildings	520,000	25,000*	50,000	$10,400	534,600
Machinery	175,000	175,000*			
" —A		90,000	10,000	6,650	93,350
" —B		70,000	20,000*	4,200	45,800
Miscell. equip.	95,000	95,000*			
Special tools		24,000	10,000*	2,850	11,150
Furniture, etc.		35,000	15,000	6,375	43,625
Trucks and autos		30,000	14,000*	3,450	12,550
Together	$1,000,000	$ 6,000*	$ 1,000	$33,925	$961,075

All retirements had been deducted at appraised reproduction value.

Prepare columnar summary statements of (a) property and (b) reserve accounts, both showing the correct adjustment of the books to the appraisal and the rectification of the bookkeeper's errors.

(c) State briefly the nature of the errors of principle in the bookkeeper's analysis.

No. 4:

Four municipalities—Rose City, Copperville, Pineboro, and Coletown—formed the Spring Valley Water Commission for the construction and operation of a joint water supply. The project was estimated to cost $10,000,000 and to have a capacity of 100 million gallons daily (MGD).

It was agreed that the capital costs were to be apportioned among the participating municipalities according to the daily water allotments, but no municipality should be charged for the cost of any part of the project unless it were to receive benefit therefrom.

Capital assessment:

The four municipalities allotted the entire estimated supply of 100 MGD among themselves and agreed to an initial assessment of the estimated cost of $10,000,000 in proportion to these allotments as follows:

	MGD	Assessment
Rose City	30	$ 3,000,000
Copperville	20	2,000,000
Pineboro	10	1,000,000
Coletown	40	4,000,000
	100	$10,000,000

All capital assessments were collected in full except that of Copperville which paid only 90% of its assessment.

Expenditure to Dec. 31, 1935:

At the close of 1935 Spider Dam and Crabtree Reservoir were completed and pipe lines had been laid, namely, twin pipe lines from Spider Dam to the point where Rose City takes off the water and a single pipe line below that point. The cost per mile of the twin pipe lines was twice the cost per mile of the single line, and it was assumed that the twin lines were constructed for the benefit of all the municipalities. For convenience the capital costs are identified by classes as follows:

Class A Cost of Spider Dam and other costs at the headworks.

Class B Twin pipe lines from Spider Dam and the headworks to the Rose City take-off—a distance of five miles.
(In accordance with the agreement the expenditures under A and B are to be distributed to all of the four participating municipalities on the basis of the contract allotments.)

Class C Single pipe line from Rose City take-off to Copperville take-off—a distance of three miles.
(This capital cost is accordingly apportionable to Copperville, Pineboro and Coletown.)

Class D Single pipe line from Copperville take-off to Pineboro

take-off—a distance of two miles.
(This capital cost is apportionable to Pineboro and Coletown.)

Class E Single pipe line from Pineboro take-off to Coletown take-off—a distance of ten miles.
(This entire capital cost is chargeable to Coletown.)

The capital costs up to January 1, 1936, when operation began, were as follows:

Construction costs:	
Headworks:	
Spider Dam	$2,000,000
Pumping station	300,000
Power house	200,000
Total	$2,500,000
Aqueduct:	
$100,000 per mile of single pipe line.	
Land, rights of way, etc.:	
Class A	$1,993,100
Class B	447,800
Class C	198,900
Class D	104,200
Class E	256,000
Total	$3,000,000
Engineering costs:	
Direct charges to classes:	
Class A	$ 440,000
Class B	120,000
Class C	80,000
Class D	60,000
Class E	100,000
Total	$ 800,000

Indirect charges—$200,000 (to be apportioned to classes in proportion to direct engineering costs).
Administrative expenses—$500,000 (to be apportioned to classes in proportion to all construction costs up to January 1, 1936, exclusive of land and engineering costs).

Operating assessment 1936:

It was further agreed that the operating costs were to be apportioned according to actual water consumption, but in no event was the basis for any municipality's portion to be less than the contract allotment. The surplus or deficit resulting from each year's operations was to be credited or charged to the succeeding year's operating assessments.

In 1936 the average daily consumption was:

Rose City	40 MGD
Copperville	10 "
Pineboro	5 "
Coletown	25 "
	80 MGD

The 1936 operating expenses, estimated at $100,000, had been assessed as follows:

Rose City	$ 30,000
Copperville	20,000
Pineboro	10,000
Coletown	40,000
	$100,000

Rose City was the only municipality that paid its operating assessment in 1936.

Expenditure 1936:

The actual expenditures for 1936 were as follows:

Capital:
It was necessary to build a surge tank to prevent water surges from breaking the aqueduct. The tank cost $100,000 and was constructed halfway between the Rose City and Copperville take-off points. It was agreed that this surge tank was of benefit to all the participating municipalities.
Operating:
$71,000

In addition to the capital and operating expenses listed above, 1936 engineering expenses were $16,000, to be apportioned 50% to the capital division and 50% to the operating division; and 1936 administrative expenses were $25,000, to be apportioned 80% to the operating division and 20% to the capital division. The portions of the engineering and administrative expenses chargeable to the capital division are to be applied to the several classes of property on the basis of the engineering and the construction costs respectively to January 1, 1936.

Water sales 1936:

The Spring Valley Water Commission, in anticipation of the under-consumption of water on the part of some of the participating municipalities, entered into a contract with Glendale for 1936 whereby this municipality agreed to pay $30 a million gallons for water. The contract provided that Glendale would take a minimum of ten million gallons a day. Glendale paid the Commission $7,500 a month on account; its consumption for the year was 3,300 million gallons. There were no expenses chargeable to the water-sales division except $30,000 representing the cost of connecting the pipe lines, which is not included in the above $71,000 operating expenses.

Profits from the sale of water to municipalities not participating in the project were to be apportioned annually to the participating municipalities on the basis of operating expenses charged to them.

General data and requirements:

The accounts of the commission are kept in three self-balancing divisions, namely: "capital," "operating," and "water-sales." At the end of 1936 all inter-divisional balances are settled in cash to the extent that funds are available in the divisions.

Prepare a balance-sheet (with supporting schedules and work papers), separately showing assets and liabilities of each division as of December 31, 1936, including the balances due from and due to the respective municipalities, and the equities of the participating municipalities.

Solution to Problem 1—

To compute Unit Cost of Direct Labor

Number of Units required to complete Work in Process 12/31/37 (½ of 1000)	500
Number of Units of January 1938 production transferred to Process B	8,000
Number of Units contained in Work in Process 1/31/38 (½ of 2000)	1,000
Total units Direct Labor	9,500
Total cost of Direct Labor, January 1938 Unit cost, $4.20	$39,900

To compute Cost of Product Transferred to Process B

Raw Materials		
1000 units @ $5.00 per unit	$ 5,000.00	
8000 units @ 5.10 per unit	40,800.00	
		$ 45,800.00
Direct Labor		
500 units @ $4.00 per unit	$ 2,000.00	
8500 units @ 4.20 per unit	35,700.00	
		37,700.00
Indirect cost (50% of Direct Labor)		18,850.00
Total		$102,350.00

To compute Cost of Goods in Process

1/31/38 (Balance of Goods in Process Account)	
Raw Materials	
2000 units @ $5.10 per unit	$10,200.00
Direct Labor	
1000 units @ $4.20 per unit	4,200.00
Indirect cost (50% of Direct Labor)	2,100.00
	$16,500.00

Goods in Process Account
Process A
Month of January, 1938

	Units	*Unit Cost*		*Amount*
Goods in process, January 1, 1938:				
Raw material	1000	$5.00	$ 5,000.00	
Direct labor	500	4.00	2,000.00	
Indirect cost	500	2.00	1,000.00	
				$ 8,000.00
Raw material issued	10000	5.10		51,000.00
Direct labor	9500	4.20		39,900.00
Indirect costs	9500	2.10		19,950.00
				$118,850.00
Transferred to next process:				
Raw material—beginning inventory	1000	5.00	$ 5,000.00	
Raw material issued in January	8000	5.10	40,800.00	
			$45,800.00	
Direct labor—beginning inventory	500	4.00	$ 2,000.00	
Direct labor cost for January	8500	4.20	35,700.00	
			$37,700.00	
Indirect cost—beginning inventory	500	2.00	$ 1,000.00	
Indirect cost for January	8500	2.10	17,850.00	
			$18,850.00	102,350.00
Goods in process, January 31, 1938				
Raw material	2000	5.10	$10,200.00	
Direct labor	1000	4.20	4,200.00	
Indirect costs	1000	2.10	2,100.00	16,500.00
				$118,850.00

(b) *Computation of Error in Indirect Costs Applied*

10% of direct labor included in operating inventory	$ 200.00
10% of direct labor cost incurred in January and transferred to Process B (10% of $35,700.00)	3,570.00
10% of direct labor cost in ending inventory	420.00
	$ 4,190.00

The adjusting entry is as follows:

Goods in process—Process A	$ 420.00	
Goods in process—Process B	3,770.00	
Indirect costs		$ 3,990.00
Profit and Loss		200.00

To correct the inventory in Process A, the charge to Process B and the understatement of $200.00 in the profits of 1937.

COMMENTS

In order to obtain the correct unit costs of direct labor and indirect expense the candidate must calculate the number of units of those elements on the basis that a unit of goods in process is equivalent to a half unit of finished product. Accordingly, while 11,000 units of product were handled in the department, only 9,500 units of direct labor and indirect costs were incurred.

The second point in this problem results from the increase in the January costs over the December costs. There may be a temptation to average the costs in the opening inventory with the costs incurred in January, but this should not be done. The cost of 1,000 of the 9,000 finished units is the cost of the opening inventory plus the costs incurred in January to complete the process of those goods. If the costs are averaged the costs transferred to the next department will be overstated and the ending inventory in Process A will be understated.

Solution to Problem 2—

Inventory at Date of Death (Schedule A)

Cash	$ 25,000.00
Accounts receivable	55,000.00
5½% first mortgage bonds	100,000.00
Accrued interest on 5½% first mortgage bonds	1,375.00
U. S. 2¾% Treasury bonds	50,000.00
Accrued interest on U. S. 2¾% Treasury bonds	515.63
1000 shares A Mining Company stock	no value
1000 shares B Industries, Inc. stock	110,000.00
Dividend Receivable—B Industries, Inc.	4,000.00
Clothing	1,000.00
Jewelry	5,000.00
Furniture	10,000.00
Total	$361,890.63

Cash Receipts

	Corpus		*Income*
	Inventory Value	*Profit or Loss**	
Balance, per inventory	$ 25,000.00		
U. S. Treasury bonds	40,000.00	$ 800.00	
Interest on U. S. Treasury bonds sold	412.50		$ 137.50
Accounts receivable	55,000.00	5,000.00*	
Dividend receivable	4,000.00		
Dividend income			2,000.00
Furniture	10,000.00	1,000.00*	
A Mining Company stock		250.00	
Interest on bank deposits			1,250.00
Refund of Federal taxes—1935	500.00		
Interest on U. S. Treasury bonds on hand	103.13		309.37
Interest on 5½% first mortgage bonds	1,375.00		4,125.00
	$136,390.63	$4,950.00*	$7,821.87

Cash Disbursements

	Corpus	*Income*
Funeral expenses	$ 2,500.00	
Administration expenses	8,000.00	
Legal services	3,000.00	
Debts of testator	15,000.00	
Federal and State taxes to date of death	3,100.00	
Cemetery	2,500.00	
Hospital	2,000.00	
Church	5,000.00	
Relative	5,000.00	
Executors	15,000.00	
	$ 61,100.00	
Balance of cash	70,340.63	$7,821.87
	$131,440.63	$7,821.87

Estate of John Jones, ————, Executors
Summary Statement as to Principal
September 30, 1936 to November 30, 1937

The executors charge themselves with:

Inventory of assets at the date of death (Schedule A)	$361,890.63
Receipt of cash refund on 1935 Federal taxes paid by testator	500.00
Total charges	$362,390.63

The executors credit themselves with:		
Funeral expenses paid		$ 2,500.00
Administration expenses paid		8,000.00
Legal expenses paid		3,000.00
Debts of testator paid		15,000.00
Federal and State taxes paid		3,100.00
Legacies paid:		
Cemetery for upkeep of burial plot	$ 2,500.00	
Hospital	2,000.00	
Church	5,000.00	
Relative	10,000.00	
Executors (in lieu of fees)	15,000.00	34,500.00
Net loss on corpus assets:		
Worthless accounts receivable	$ 5,000.00	
Loss on sale of furniture	1,000.00	
	$ 6,000.00	
Less: Gain on sale of U. S. Treasury bonds	$ 800.00	
Gain on sale of A Mining Company stock	250.00	
	$ 1,050.00	4,950.00
Clothing given to charity		1,000.00
Total credits		$ 72,050.00
Balance of assets on hand:		
Cash	$ 70,340.63	
5½% first mortgage bonds	100,000.00	
U. S. Treasury 2¾% bonds	10,000.00	
1000 shares of B Industries, Inc. stock	110,000.00	290,340.63
Total		$362,390.63

Estate of John Jones, ———, Executors
Summary Statement as to Income
September 30, 1936 to November 30, 1937

The executors charge themselves with:	
Interest collected on U. S. 2¾% Treasury bonds	$ 446.87
Interest collected on 5½% first mortgage bonds	4,125.00
Interest on bank deposits	1,250.00
Dividend received on stock in B Industries, Inc.	2,000.00
Balance of cash on hand	$7,821.87

COMMENTS

There are no difficulties presented in this problem if the candidate is familiar with the ordinary distinctions that are made between corpus and income. The rules involved in this problem and which have had general acceptance in the various States are given below:

(1) Interest on securities which has accrued and cash dividends on stock which have been declared prior to the death of the testator are a part of the corpus of the estate. Interest on securities which accrues and cash dividends on stock which are declared after the death of the testator are regarded as income.

(2) In this problem the candidate was told that the interest earned on the bank deposits applied to the period subsequent to the death of the testator. In most States bank interest is not assumed to accrue from day to day but rather is considered as having been earned when credited by the bank. Consequently, this information was without point.

(3) Losses or gains on the disposal of

assets forming a part of the corpus are charged or credited to the corpus.

(4) Funeral expenses, debts of the testator and legacies are charged against the corpus of the estate.

(5) Administration and legal expenses during the period of probation are charged against the corpus of the estate.

Solution to Problem 3—

Hopewell Company
Statement of Property and Reserve Accounts
December 31, 1937

(a) Property Accounts

	Net Balance Dec. 31, 1936 Before Appraisal	*Adjustment to Appraisal Debit Credit**	*1937 Additions or Retirements**	*Balance at 1936 Replacement or 1937 Cost*
Land	$ 210,000.00	$ 40,000.00	$30,000.00*	$ 220,000.00
Buildings	520,000.00	10,000.00	50,000.00	580,000.00
Machinery	175,000.00	175,000.00*		
Machinery A		100,000.00	10,000.00	110,000.00
Machinery B		80,000.00	20,000.00*	60,000.00
Miscell. Equipment	95,000.00	95,000.00*		
Special Tools		30,000.00	10,000.00*	20,000.00
Furniture, etc.		43,000.00	15,000.00	58,000.00
Trucks and autos		42,000.00	14,000.00*	28,000.00
Total	$1,000,000.00	$ 75,000.00	$ 1,000.00	$1,076,000.00

(b) Reserves Accounts

	Depreciation per Appraisal	*Depreciation on Retired Assets Written Off*	*1937 Depreciation*	*Balance Dec. 31, 1937*
Buildings	$35,000.00		$11,100.00	$ 46,100.00
Machinery A	10,000.00		6,300.00	16,300.00
Machinery B	10,000.00	$ 3,300.00	5,600.00	12,300.00
Special Tools	6,000.00	2,500.00	2,500.00	6,000.00
Furniture, etc.	8,000.00		6,312.50	14,312.50
Trucks and autos	12,000.00	5,400.00	7,000.00	13,600.00
Total	$81,000.00	$11,200.00	$38,812.50	$108,612.50

	Total per Appraisal	*Applicable to Land Sold*	*Balance Dec. 31, 1937*
Reserve for Unearned Increment on Land	$40,000.00	$4,800.00	$ 35,200.00
Total Reserves—Dec. 31, 1937			$143,812.50
Net Value of Property—Dec. 31, 1937			$932,187.50

(c) **The bookkeeper failed to handle the retirement of assets in the proper manner. Since his accounts were carried at the net value of the assets the accounts should have been relieved of retirements on the basis of the net values rather than at the gross amounts.**

The bookkeeper failed to follow the accepted accounting practice of carrying depreciation to reserve accounts.

The other errors were of a mechanical nature in that the bookkeeper used incorrect rates of depreciation and an incorrect method of calculating depreciation.

COMMENTS

It will be noted that in the solution presented above the net value of the property, $932,187.50, is the value after deducting both the reserve for depreciation and the reserve for unearned increment on land. This treatment is thought to be the proper one in order that the balance sheet may show the cost of the land at $184,800.00. The write-down of all other assets should be charged to earned surplus by way of the profit and loss account and should not be set off against the appreciation in the land value.

Solution to Problem 4—

	Capital Costs							
	Class A	*Class* B	*Class* C	*Class* D	*Class* E	*Surge Tank*	*Sub-Total*	*Total*
Construction costs:								
Spider Dam	$2,000,000.00						$2,000,000.00	
Pumping station	300,000.00						300,000.00	
Power house	200,000.00						200,000.00	
Aqueduct		$1,000,000.00	$300,000.00	$200,000.00	$1,000,000.00		2,500,000.00	$5,000,000.00
Land, rights of way, etc.	1,993,100.00	447,800.00	198,900.00	104,200.00	256,000.00			3,000,000.00
Engineering costs:								
Direct	440,000.00	120,000.00	80,000.00	60,000.00	100,000.00		800,000.00	
Indirect (25% of direct costs)	110,000.00	30,000.00	20,000.00	15,000.00	25,000.00		200,000.00	1,000,000.00
Administrative expense (10% of construction costs)	250,000.00	100,000.00	30,000.00	20,000.00	100,000.00			500,000.00
Total capital costs to January 1, 1936	$5,293,100.00	$1,697,800.00	$628,900.00	$399,200.00	$1,481,000.00			$9,500,000.00
1936 Costs								
Surge tank						$100,000.00		100,000.00
Engineering costs (on the basis of 1935 engineering costs)	4,400.00	1,200.00	800.00	600.00	1,000.00			8,000.00
Administrative expense (on the basis of 1935 construction costs)	2,500.00	1,000.00	300.00	200.00	1,000.00			5,000.00
Total capital costs to December 31, 1936	$5,300,000.00	$1,700,000.00	$630,000.00	$400,000.00	$1,483,000.00	$100,000.00		$9,613,000.00

Distribution of Costs to Municipalities
(On the basis of contract allotments and benefits received)

	Rose City	*Copperville*	*Pineboro*	*Coletown*	*Total*
Class A (30%-20%-10%-40%)	$1,590,000.00	$1,060,000.00	$ 530,000.00	$2,120,000.00	$ 5,300,000.00
Class B (30%-20%-10%-40%)	510,000.00	340,000.00	170,000.00	680,000.00	1,700,000.00
Class C (2/7-1/7-4/7)........		180,000.00	90,000.00	360,000.00	630,000.00
Class D (1/5-4/5)............			80,000.00	320,000.00	400,000.00
Class E (Coletown only)......				1,483,000.00	1,483,000.00
Surge tank (30%-20%-10%-40%)	30,000.00	20,000.00	10,000.00	40,000.00	100,000.00
Total..............	$2,130,000.00	$1,600,000.00	$ 880,000.00	$5,003,000.00	$ 9,613,000.00

Excess or Deficient Assessments

	Rose City	*Copperville*	*Pineboro*	*Coletown*	*Total*
Initial assessment............	$3,000,000.00	$2,000,000.00	$1,000,000.00	$4,000,000.00	$10,000,000.00
Distribution of costs..........	2,130,000.00	1,600,000.00	880,000.00	5,003,000.00	9,613,000.00
Excess or deficiency*..........	$ 870,000.00	$ 400,000.00	$ 120,000.00	$1,003,000.00*	$ 387,000.00

Operating Division

The operating expenses are apportioned on the basis of water consumed or the contract allotment whichever is greater. On this basis the distribution is as follows:

Rose City..	4/11 of $99,000.00 or	$36,000.00
Copperville..	2/11 of $99,000.00 or	18,000.00
Pineboro...	1/11 of $99,000.00 or	9,000.00
Coletown...	4/11 of $99,000.00 or	36,000.00
Total..		$99,000.00

The operating expenses are computed below:

Operating expenses..................................	$71,000.00
Portion of engineering expense......................	8,000.00
Portion of administrative expense...................	20,000.00
	$99,000.00

Statement of Equities

	Rose City	*Copperville*	*Pineboro*	*Coletown*	*Total*
Assessment............................	$30,000.00	$20,000.00	$10,000.00	$40,000.00	$100,000.00
Operating expenses....................	36,000.00	18,000.00	9,000.00	36,000.00	99,000.00
Over or under* assessment.............	$ 6,000.00*	$ 2,000.00	$ 1,000.00	$ 4,000.00	$ 1,000.00
Distribution from Water Sales division.....	21,818.18	10,909.09	4,454.55	21,818.18	60,000.00
Balances..............................	$15,818.18	$12,909.09	$ 6,454.55	$25,818.18	$ 61,000.00

Water Sales Division

Sales to Glendale (Minimum 3660 million gallons at $30.00 per million gallons)................	$109,800.00
Cost of connecting pipe lines..	30,000.00
Profit on sales to Glendale..	$ 79,800.00

Distribution of Profit

Rose City..	$ 29,018.18
Copperville..	14,509.09
Pineboro...	7,254.55
Coletown...	29,018.18
	$ 79,800.00

Balance due from Glendale

Sales	$109,800.00
Received on account	90,000.00
Balance due	$ 19,800.00

Cash Account

Cash received from Glendale	$ 90,000.00
Cost of connecting pipe lines	30,000.00
Balance paid to operating division	$ 60,000.00

Balance due to Operating Division

	Rose City	*Copperville*	*Pineboro*	*Coletown*	*Total*
Profit of water division	$29,018.18	$14,509.09	$7,254.55	$29,018.18	$79,800.00
Cash transferred to operating division	21,818.18	10,909.09	5,454.55	21,818.18	60,000.00
Balance due	$ 7,200.00	$ 3,600.00	$1,800.00	$ 7,200.00	$19,800.00

Spring Valley Water Commission
Balance Sheet
December 31, 1936

Assets

Capital division		
Headworks:		
Construction costs	$2,500,000.00	
Engineering costs	554,400.00	
Administrative costs	252,500.00	$3,306,900.00
Aqueduct:		
Construction costs	$2,500,000.00	
Engineering costs	453,600.00	
Administrative costs	252,500.00	3,206,100.00
Surge tank		100,000.00
Land, rights of way, etc.		3,000,000.00
Cash		187,000.00
Due from Coletown for capital costs		1,003,000.00
Assessment receivable—Copperville		200,000.00
Total assets		$11,003,000.00
Operating division		
Assessments receivable:		
Copperville	$ 20,000.00	
Pineboro	10,000.00	
Coletown	40,000.00	$ 70,000.00
Total assets		$ 70,000.00

Equities

Capital division			
Rose City:			
Share of capital costs		$2,130,000.00	
Assessment in excess of share of capital costs		870,000.00	$3,000,000.00
Copperville:			
Share of capital costs		$1,600,000.00	
Assessment in excess of share of capital costs		400,000.00	2,000,000.00
Pineboro:			
Share of capital costs		$ 880,000.00	
Assessment in excess of share of capital costs		120,000.00	1,000,000.00
Coletown:			
Share of capital costs			5,003,000.00
Total equities			$11,003,000.00
Operating division			
Accounts payable			$ 9,000.00
Rose City:			
Assessment		$ 30,000.00	
Operating expenses	$36,000.00		
Distribution from Water Sales division	21,818.18	14,181.82	15,818.18
Copperville:			
Assessment		$ 20,000.00	
Operating Expenses	$18,000.00		
Distribution from Water Sales division	10,909.09	7,090.91	12,909.09
Pineboro:			
Assessment		$ 10,000.00	
Operating expenses	$ 9,000.00		
Distribution from Water Sales division	5,454.55	3,545.45	6,454.55
Coletown:			
Assessment		$ 40,000.00	
Operating expenses	$36,000.00		
Distribution from Water Sales division	21,818.18	14,181.82	25,818.18
Total equities			$ 70,000.00

Spring Valley Water Commission
Balance Sheet (con't)
December 31, 1936

Assets			*Equities*			
Water sales division			*Water sales division*			
Due from Glendale	$	19,800.00	Rose City:			
			Profits	$	29,018.18	
			Less transfer to operating division		21,818.18	$ 7,200.00
			Copperville:			
			Profit	$	14,509.09	
			Less transfer to operating division		10,909.09	3,600.00
			Pineboro:			
			Profit	$	7,254.55	
			Less transfer to operating division		5,454.55	1,800.00
			Coletown:			
			Profit	$	29,018.18	
			Less transfer to operating division		21,818.18	7,200.00
Total assets	$	19,800.00	*Total equities*			$ 19,800.00

COMMENTS

The object of this problem seems to be a test of the examinee's ability to follow instructions. The problem, while not difficult, and not requiring an extensive knowledge of governmental accounting, is long and requires careful attention and close reading. Unlike so many problems given in the examinations, every statement in this problem has a bearing on the solution. However, it is difficult to believe that an examinee who fails to recall that 1936 was a leap year will be penalized.

The Class C and Class D costs were distributed to the participating municipalities on the basis of the contract allotments of the municipalities benefiting from those costs.

The operating expenses of the operating division were apportioned in accordance with the statement that the expenses were to be borne "according to actual water consumption, but in no event was the basis for any municipality's portion to be less than the contract allotment." The spread was made as follows:

Rose City	40 MGD	(Actual consumption)
Copperville	20 MGD	(Contract allotment)
Pineboro	10 MGD	(Contract allotment)
Coletown	40 MGD	(Contract allotment)
	110 MGD	

ACCOUNTING AND THE S.E.C.

FOLLOWING are four additional cases supplied by the Securities and Exchange Commission as illustrative of the questions raised with public accountants on annual financial statements. In each instance the question has been resolved by acceptance of the recommendations by the Commission's staff. As stated before in these pages, the solutions of the problems raised are not necessarily precedents which the Commission's staff is obligated to follow in the future, but they are without doubt shaping accounting theory into new molds. Names of the corporations involved in these or preceding cases will be supplied by the Editor to any person who desires to give them further study.

The comments following the cases are the Editor's.

17. In 1934 a registrant effected a reduction in its asset accounts in the amount of $151,689.50 by a charge to paid-in surplus which had been created by a reduction in the stated value of the common stock. On its balance sheet surplus was shown in one amount comprised of paid-in surplus less earned surplus (deficit).

The registrant was informed that: "Capital Surplus should under no circumstances be used to write off losses which, if currently recognized, would have been chargeable against income." As a result, the write-down was transferred from paid-in surplus to earned surplus (deficit) and the balance sheet was amended to show the paid-in surplus and deficit separately.

18. In 1933, a publishing company created capital surplus in the amount of $7,517,925 by a reduction of its capital stock. Charges aggregating $2,873,835.09 were made against this capital surplus for the purpose of creating various reserves, the nature of which was such that earnings and earned surplus were relieved of charges which ordinarily would have been applied thereagainst.

In filing financial statements for the fiscal year ended December 31, 1937, the registrant reflected an entry charging earned surplus and crediting capital surplus for the then-existing balance of the reserves previously established.

The explanation of the certifying accountants of the reversal in policy of the registrant is included in their certificate as follows:

"................... made entries in 1933 charging Capital Surplus $2,873,835.09 for the purpose of creating various reserves to revalue assets, to provide for write-off of additions to fixed assets, to increase its statement of deferred income resulting from receipts from subscribers, and to provide for losses in the dissolution of subsidiaries or the discontinuance of publications. While, in our opinion, such entries were then regarded as acceptable accounting practice, under present accepted practice such reserves would be created by charges to Earned Surplus and not Capital Surplus. In 1937, ... recognized the change in accepted accounting practice and made an entry charging Earned Surplus and crediting Capital Surplus for the then existing balance ($1,572,067.61) of such reserves. If the balance of the amount ($1,301,767.48) set up in 1933 had been charged to Earned Surplus instead of Capital Surplus, the Earned Surplus would be stated at $1,806,263.39 (instead of $3,108,030.87) in the balance sheet of ....and $2,050,725.01 (instead of $3,352,492.49) in the balance sheet of .... and Subsidiary Companies."

19. As originally filed the balance sheet of an industrial company contained the following notation:

"No segregation has been made by the Registrant of dividends received from subsidiary and affiliated companies as to amounts which were paid out of Earned Surplus at dates of acquisition and amounts which were paid out of subsequent earnings. The whole of these dividends has been credited to Earned Surplus (Deficit) of the Registrant."

The certifying accountants took no exception to this practice and certified that the financial statements were prepared "in accordance with accepted principles of accounting."

Following objection raised by the staff of the Commission with regard to this accounting practice, the company amended its financial statements in the manner indicated in the following note which was appended to the balance sheet:

"Prior to 1936, all dividends received by the registrant from subsidiaries were credited to Earned Surplus. Such dividends as had been paid by subsidiaries out of Earned Surplus at date of acquisition have now been charged to Earned Surplus of registrant and credited to Investments in Affiliates.

"Dividends received by registrant from subsidiaries in 1936 paid out of Earned Surplus at date of acquisition have been credited to Investments in Affiliates."

20. As originally filed there was included in capital surplus of a registrant $202,525.00, representing dividends received from a subsidiary out of income accumulated prior to acquisition of the subsidiary's stock by the registrant.

The registrant explained that these dividends had not been applied to reduce its investment in the subsidiary because (1) the net assets of the subsidiary (including goodwill) at the date of acquisition of the subsidiary's stock by the registrant were considerably more than $202,525 in excess of the cost of said stock to the registrant and (2) the dividends received constituted a partial realization of the capital surplus of the subsidiary at acquisition, which capital surplus had not been taken up on the books of the registrant although recognized in preparing the consolidated balance sheet.

The Commission's staff did not consider the facts outlined in the registrant's explanation to be justification for the treatment afforded the dividends by the registrant. Accordingly, the financial statements were amended to apply the dividends as a reduction of the registrant's investment in the stock of the subsidiary.

COMMENTS

It is of interest to observe in Case 17 that despite an existing deficit from operations, the Commission has insisted that a write-off of assets be added to such deficit rather than be charged to paid-in surplus. This is a position consistent with the practice of many accountants and with the Association's tentative statement of principles. Attorneys who still insist that an operating deficit dissociated from capital is unthinkable, in view of the fact that it represents a loss of assets, would do well to review the Commission's attitude on the subject. In effect, that attitude has been to regard the detail of net worth as a historical record in which the distinctions between contributed and accumulated capital must be preserved for the information of investors and others until, by formal consent of the stockholders, their contributions have been reduced to the net-asset level reflected in the balance sheet. The reduction is tantamount to a recapitalization or reconstitution of the enterprise. It may thus be said that the Commission looks with favor on the theory that the authority for its disposition of net-worth accounts is preserved for stockholders, regardless of the tendency in recent corporation laws to strengthen the hand of management.

Case 18 resembles Case 13 which appeared in the March issue of the *Review*. Valuation accounts created out of paid-in surplus arising from a recapitalization were used as repositories of expenses and losses amounting to $1,300,000 that should have been charged to earnings. The Commission here apparently felt itself obligated to accept disclosure for the past and an announcement of a change in future practices in lieu of a forthright reversal of the overstatement of earned surplus which the company and its accountants had permitted to stand in previous years' statements without comment. This case illustrates admirably the "compelling" effect of principles; but apparently the moral compulsion manfully accepted by some accountants will not here be permitted to interfere with surplus transactions consummated in the past. Will the accounting era before 1936 be known to future students as the "precompulsion" period?

In Cases 19 and 20, however, the accountants, after they had been led to see the light by the Commission's staff, recognized no precompulsion period. The past was changed to conform to the present and the future. Perhaps in these instances there was a better reason for the change than in Case 18. Through the failure to credit to the investment account the portion of the dividends received which were earned prior to acquisition, the asset would have remained overstated. In Case 18 there were merely improper relationships within the net-worth accounts which had no effect on the asset total.

BOOK REVIEWS

Auditing Procedure. P. E. Bacas, J. T. Madden, and A. H. Rosenkampff. (New York: The Ronald Press Company, 1937, pp. xvi, 443. $3.75.)

This book is not written for the practicing auditor, but is a text intended for the student who wishes to take up the profession.

The authors, in fact, point out that the object of the text is to discuss the procedure followed in public accounting practice in such a manner that it parallels the progressive experience of the average junior starting at the bottom of the ladder. The clearness and thoroughness of the text matter and the manner of presentation render it well adapted to this purpose. Matters of procedure are made clear by the extended use of well-designed illustrations. Followng the chapters devoted to preliminary arrangements and general procedure, the authors discuss the steps necessary in the analysis and verification of original records, asset accounts, liability accounts and operating accounts, together with the procedure for the preparation of certificates and reports. Justly finding their place in a book of this nature are certain problems such as branch accounts, partnerships, consolidated accounts and the preparation of budgets. Brief reference is made to the Securities Exchange Act. The above sections are presented in a very concise and logical manner. The text does not, however, consider the more complex matters with which the practicing accountant is concerned. All in all, your reviewer believes the publication an ideal textbook and is well worthy of the attention of students and teachers of accounting. It is well planned, direct and readable.

Philip H. Hensel

University of Western Ontario

Business and Modern Society. Papers by members of the faculty of the Graduate School of Business Administration of Harvard University. Edited by Malcolm P. McNair and Howard T. Lewis. (Cambridge: Harvard University Press, 1938; pp. viii, 411. $5.00.)

Period surveys of our existing institutions may be said to have a distinct usefulness. The present survey is doubly significant, first because it breaks through the narrow confines of specialized techniques and views the world of business and its rapidly evolving institutions in relation to a society developing less uniformly and less rapidly; secondly, the present volume is welcome just because it represents the thoughts and aspirations of the Faculty of the Harvard Business School. Here is no mere defense of existing institutions, but a genuine examination of the problem posed by each contributor, and a willingness to make concessions to liberal opinion. The fatal defect of classical and neo-classical economics was that after explaining the manner and mechanism of our society it assumed that because these things were so they must be so. And so we have suffered from a weary repetition of 19th century slogans and battle cries as an answer to all criticism: "laissez-faire," "demand and supply," the "iron law of wages," etc., ad nauseam. If institutionalism in economics has largely ignored the precepts of classicism, it has nevertheless postulated one basic thought: that our institutions are man-made, and what mankind has wrought, mankind may change. It was only when men began to shake off Aristotelian logic and the pressure of medieval scholasticism that they began to assert themselves in relation to the forces of nature. In modern times, the forces of the industrial revolution and of Darwinian evolution have further contributed to hasten the processes of acquiring mastery over the forces of nature. But so rapid have been the changes brought about by scientific progress that we may be said not to have mastered these forces which we ourselves have brought into existence, that we are in fact suffering a form of what might be called social indigestion. It is in this general setting and from this point of view that the present volume must be judged.

The authors of this volume of essays have attempted to cope with problems of modern business management representing forces only partly understood. The range of these problems is better understood from the titles of the essays which are herewith submitted:

"Material Progress and Social Discontent," Wallace B. Donham.

"Understanding: A Prerequisite of Leadership," F. J. Roethlisberger.

"The Historical Background of Modern Price Regulation," N. S. B. Gras.

"The Logic of Public and Private Administration," Nathan Isaacs.

"Proposed Reforms of Accounting," T. H. Sanders.

"The Effect of Direct Charges to Surplus on the Measurement of Income," W. A. Hosmer.

"Some Recent Experiments in the Control of Manufacturing Costs," Ross G. Walker.

"Business Cycle Theories: Some Comments for the Layman," Malcolm P. McNair.

"The Adjustment to Instability," Sumner H. Slichter.

"The United States Federal Debt, with Special Refference to Bank Holdings and Monetary Control," Joseph B. Hubbard.

"Logics and Emotions in Marketing," Stanley F. Teele.

"The Study of Consumer Demand in Relation to Capitalistic Society," Harry R. Tosdal.

"Agriculture—The Great Dilemma," Deane W. Malott.

"Some Rate-Making and Marketing Problems of Public Utilities," C. O. Ruggles.

It would be unreasonable to expect absolute uniformity of thought from such a variety of topics and authors. Such uniformity as exists arises from the fact that the authors are all members of the same faculty, charged with the task of educating students for future leadership in business. Hence, certain conclusions, more or less implicit throughout the book may be formulated:

(1) That business operates and must continue to

operate within the general framework of a capitalist society.

(2) That individual enterprise while desirable must be limited by the mutual dependence of business and the social organism.

(3) That there is much room for improvement in the management of enterprises, through a better understanding of the techniques now available.

(4) That, in the case of large corporations, management must realize its responsibilities to the owners, employees and the public.

There is of course nothing new in these propositions. Berle and Means in *The Modern Corporation & Private Property* have emphasized the fiduciary nature of corporate powers exercised by the management.

Dean Donham's article dealing with the problem of technical progress and one of its accompanying by-products, social discontent, properly heads the list. He regards the Industrial Revolution as made op of four revolutions: (1) power, (2) electrical, (3) chemical and (4) revolution in management. These forces operating in the name of efficiency have left their disorganizing effects upon our society due to our lack of comprehension of their real significance. They have brought insecurity to increasing numbers of our population, but business though destructive of old social routines has created many new ones. Dean Donham quotes with approval from Brooks Adams's *The Theory of Social Revolution* that unless capital (business leadership) learns to look beyond its immediate sphere and adopts a social viewpoint it is doomed to play a steadily declining role in the community. There is no denying the fact, as Dean Donham points out, that 1929 marks the end of an era and that we are in a transition state. But his recognition of the forces of social malcontent sounds a bit academic. There is no vigorous protest of the problems of the "submerged third of a nation," of the "forgotten man," but perhaps that is a political question. It is all very well to talk of business leadership and the social viewpoint but something more than lofty phrases are required when business is confronted with sit-down strikes, shrinking profit margins, excess producing capacity and reduced purchasing power of the consumer. And why was there no article included in this series on labor relations? Since the problems of agriculture and of public utilities are covered, the omission of any specific reference to labor relations is disturbing.

With respect to agriculture, Professor Malott is disturbed by the growing dependence of the farmer on government subsidies. But farming by and large is still an individualistic enterprise and leadership must therefore come from governmental sources. They alone can cope with the problem of the tenant farmer and the share cropper. True, continued restriction of output at public expense cannot be accepted as a permanent solution, but where are the new markets Professor Malott mentions? It may be true that markets are lost to American producers through importations of farm products, but are they products that can be economically grown here? Also just what is the "enormous potential market for the products of the land . . . in industry?"

Professor Ruggles in discussing public utilities points out that utility management must take the initiative in improving service and lowering rates, but that the problem of regulation would be made easier if competent technical staffs were more generally employed by the regulating commissions. The problems of *marketing* utility services seem so far to have received but inadequate attention. Professor Ruggles has a low opinion of yardstick plants, on the ground that they are competing plants, and that our experience with such plants has not been a happy one. This view seems to me somewhat too superficial. Only through a governmental agency could a plan such as T.V.A.'s be brought about; then too the yardstick plants or the threat of such plants have been instrumental in lowering consumer rates.

Of particular interest to accountants are the three articles by Professors Sanders, Hosmer, and Walker. Apparently the first two do not see eye to eye with respect to the recommendations of the American Accounting Association concerning the virtual abolition of direct charges and credits to surplus. Professor Sanders presents a sympathetic appreciation, however, of the aims and practical workings of the S.E.C. In connection with utility regulation he disapproves of the principle of original cost to original owner, though it has been upheld by the Supreme Court. In general, however, he manifests an impatience with mandatory government regulations pertaining to accounting and recommends a breathing spell. In order to curb the practice of placing assets on corporate books at ridiculously high prices, merely because large blocks of stock have been issued for them, Professor Sanders suggest the complete separation of tangible and intangible assets, the former appearing at somewhere near their actual values. This in turn would result in fewer eventual write-downs of plants.

Professor Hosmer's point of departure, as indeed of of every competent accountant, is the proper measurement of income. The problems involved are those of inventory valuation, depreciation, certain features of consolidation and intercorporate relations, the policy in writing off expenses and asset revaluations to surplus, and the handling of investment portfolios. Professor Hosmer limits the discussion to the direct entries made to Surplus and their effect on income and also to the distinction between earned and capital surplus. There is no gainsaying that direct surplus adjustments in the past have been vastly overdone, but their complete elimination would introduce too great rigidity into income determination.

Professor Walker's article develops the idea of flexible budgets for variable expenses. With carefully determined statistics on variable costs, the control of volume, price and product is made more certain, particularly with respect to differential costs of production and distribution, and the predetermining of costs for any desired volume and composition of business.

Professor McNair has handled a difficult subject with great skill in presenting a resumé of business cycle theories. Professor Slichter in discussing the problem of instability seems not very hopeful. Neither private nor

governmental agencies seem equal to the task of managing our economy, and yet central management seems necessary to stability in production and employment.

The history of modern price regulation is presented by Professor Gras. In contrast to Slichter, Gras sounds rather more assured, though hardly reassuring. He concludes, "We are probably justified in believing that the new formula to be devised by national capitalism will involve an equilibrium of interest between large and small units, employer and employee, producer and consumer, and saving and spending." Even if national capitalism (fascism to you) accomplished all these things, the sacrifice of individual liberty of thought and action is hardly worth the price.

It is obviously impossible within the limits of a book review to do justice to fourteen articles. I can only say that the effort has been worth while and ought to be repeated, say every five or ten years. If only business would listen to the voice of the academician! If . . . .

THEODORE LANG

New York University

Cost Accounting. John J. W. Neuner. (Chicago: Business Publications, Inc., 1938, pp. xiv, 710. $4.00.)

This book is primarily a textbook designed to give students a knowledge of cost accounting principles and procedures. The book is divided into two sections and thus is adaptable to both semester and year courses.

The first section of the text comprises fifteen chapters and covers the fundamental principles of cost accounting. The introductory chapter, besides presenting the usual features to help the student visualize cost objectives, contains a brief list of typical manufactured products together with the respective cost "unit of manufacture" of each. The chapter on "Basic Cost Accounting Terminology" should prove especially helpful and is a well conceived teaching aid. The next chapters of this section develop the relationship between the cost and financial records, emphasize the job order cost method, and present the books of original entry and the chart of accounts for a manufacturing concern. The chapter on Factory Wage Systems is useful as a review of various wage incentive plans. A comprehensive job order cost set for which the necessary blanks are available completes the first section.

The second section of fourteen chapters presents special phases and some of the more recent developments in cost accounting. Process costs, standard costs, and estimated costs are treated quite thoroughly. Sets are included for both process cost and standard cost systems for which blanks are also obtainable. It is probable that schools devoting but one semester to cost accounting will not find time to use all three sets in which case the job order cost set will prove the most satisfactory. There is a chapter on distribution cost accounting. Considerable emphasis is placed on uniform cost accounting systems.

The book concludes with an excellent chapter on "A Re-examination of Cost Accounting From the Managerial Viewpoint" which is both thought provoking and informative.

Chapters are followed by sets of related questions and problems in sufficient number to furnish adequate laboratory and review material. A complete solutions manual is available. Numerous illustrations, charts, and tables are contained in the book. The style is clear, the material is current, and the presentation is comprehensive without being burdensome.

J. C. GIBSON

University of Wisconsin

Essentials of the Mathematics of Investment. Paul R. Rider. (New York: Farrar & Rinehart, Inc., 1938, pp. x, 162. $2.)

This small volume is presented as a text and is supported by questions for class use and by an excellent set of tables based on James W. Glover's "Tables of Applied Mathematics in Finance, Insurance, Statistics." Professor Rider's book is, in addition, an excellent handbook and covers the essentials of the mathematical theory of investment, finance, annuities, and life insurance.

The plan of the book is to present, first, a very short chapter which summarizes the algebraic and logarithmic methods to be used. Then follow chapters on interest, annuities, sinking funds, building and loan associations, bonds, mortality tables, life annuities, and life insurance. The method in each chapter is the same. First the author has given a brief explanation of the topic under consideration, frequently little more than a definition. Next equations are developed to cover the various types of problems arising in the study of each topic. And finally, problems designed for class work are included.

The author occasionally confuses accounting terminology. Thus he speaks of establishing a sinking fund for the replacement of worn-out equipment, and "the annual payment is called a depreciation charge." And "book value of the asset at a given time is defined as the difference between its original cost and the amount in the depreciation fund." However, such uses of accounting terminology do not seriously impair the equations developed.

The material is clearly presented and, from the standpoint of accountants and economists, this volume should prove an excellent handbook.

FRANK P. SMITH

University of Rochester

Municipal Accounting—Accounting Principles and Procedure. Charles H. Langer. (Chicago: Walton Publishing Company, 1938, 149 pp. $3.50.)

This book consists of five (5) "lectures" on municipal accounting, the contents being arranged as follows:

Lecture I	
Introduction	1 pages
Financial Organization	6 pages
Budgetary Procedure	13 pages
	20 pages
Lecture II	
Accounting for Municipal Funds	6 pages
General Fund	13½ pages
Special Revenue Funds	½ pages
	20 pages

Lecture III	
Revolving Funds	5 pages
Bond Funds	7 pages
Special Assessment Funds	8 pages
	20 pages
Lecture IV	
Sinking Funds	6½ pages
Trust Funds	4 pages
Agency Funds	1 pages
Public Service Enterprise Funds	8½ pages
	20 pages
Lecture V	
General Fixed Properties	2 pages
General Bonded Debt	1 pages
Relationship Between the Various Municipal Funds	6 pages
Outline of Audit of Municipal Accounts	4 pages
	13 pages
Total "Lecture" pages	93 pages
Foreword to Lectures 2, 3, 4 and 5	7 pages
Municipal Accounting Terminology	9 pages
Index	5 pages
Problems and Questions	35 pages
Total pages	149 pages

It is difficult to understand how these brief "lectures" (a total of 93 pages) could be used as a text in governmental accounting. The reader will have to form his own judgment as to the adequacy of treatment given the various subjects—to the reviewer several topics are very inadequately treated.

The 35 pages of problems and questions in the back of the text following the "Lectures" contain several problems quoted from state and Institute examinations for which absolutely no credit is given. Accounting instructors will recognize several problems at a glance. One of them I used in my class in 1919 for it was given in the Wisconsin C.P.A. examination of that fall.

The 7 page Foreword to Lectures 2, 3, 4 and 5 deals mostly with the author's ideas as to the terminology which he believes should be employed in municipal accounting. Two and one-half pages of this seven page Foreword are devoted to quotations from the author's "Lecture" on "Reserves—Valuation Accounts—Earned Surplus Appropriations." The author also includes eight and one-half pages of the Municipal Accounting Terminology, issued by the National Committee on Municipal Accounting referred to in the Foreword in part as follows:

"Most of the references are to account titles suggested as substitutions for the customary titles, and are offered by the author in the belief that the titles suggested more clearly express the nature and function of the particular accounts. Some of these suggested titles are well established in commercial accounting and apply with equal force to municipal accounting; others are new in the field of municipal accounting."

The reviewer feels that it would have been much better to have taken up differences of opinion directly with the Committee on Terminology of the National Committee on Municipal Accounting.

Let no accounting instructor be worried about the statement on page 1, Lecture 1, that "Municipal Accounting Statements" published by the National Committee on Municipal Accounting, may be purchased "by Walton students at a special price of $1.50 net." Every publication of the National Committee is available to all accounting instructors at this same comparable discount, providing twenty-five copies are ordered.

F. H. Elwell

University of Wisconsin

The Robinson-Patman Act. Wright Patman. (New York: Ronald Press Co., 1938, pp. viii, 408, $4.50.)

Business and the Robinson-Patman Law; A Symposium. Edited by Benjamin Werne. (New York: Oxford University Press, 1938, pp. xiv, 296. $2.50.)

The Robinson-Patman Act has brought forth a mushroom literature written for the most part in haste to satisfy the enormous desire for information regarding this latest manifestation of the legislative mind in Washington. Mostly the articles in question appeared in various trade papers; by June, 1937, the Library of Congress had prepared a bibliography on the Robinson-Patman Act which contained a list of 375 items. Many of these were badly written, and besides were biased, representing as they did the interests of a particular industry. Gradually, however, a more systematic and scientific approach to the subject manifested itself; it was realized that the act presented problems involving basic concepts in our economy. And so, an attack was launched on various fronts; economic, legal, accounting and marketing.

Stated in the broadest language possible, the *raison d'être* of the Act will be found in the problem of regulating competition. Since the Robinson-Patman Act is an amendment to the Clayton Act, a clue is immediately apparent. It simply represents a new phase in the struggle of society to define the desirability and limits of competition. Beginning with the Sherman Act, the government had attempted to deal with this problem by prohibiting combinations in restraint of trade. The growth of integrated industrial units, tending towards monopoly control in various lines of industry had made the problem an acute one. Unrestricted growth, in accordance with the classical concept embraced in laissez-faire," had threatened to impair competition and destroy smaller business units. The latter under a laissez-faire philosphy had as much right to existence as their larger neighbors, yet found the struggle too unequal. Thus laissez-faire, instead of conducing to the greatest good of the greatest number actually deteriorated into nothing more than the law of the jungle, the survival of the fittest. The first phase of this conflict was climaxed by the passage of the Sherman Act. The latter, during the days of the "trust-busting" era then became responsible for a line of decisions which have

made judicial history, though their putative beneficial social effects may still be a matter of dispute.

Quite obviously new remedies were needed. Society found itself in the position of King Canute trying to hold back the tide of integration. The Supreme Court quite properly held to the thesis that mere size was not in itself an offence at law; and yet size brings in its wake specific evils which may well be considered too big a price to pay for the reputed gains in efficiency made possible by mass production and mass distribution on a national scale. Since it became impossible to stem the movement towards integration, a new remedy was sought. This consisted of placing under a legislative ban specific evils brought about by the growth in size of industrial units. These evils arose, broadly speaking, from the fact that large units were able to bring pressure to bear on their sources of supply for additional discounts, on the threat of withholding patronage and purchasing elsewhere; they were able to extort advertising allowances, rebates, dummy brokerage, etc.; they could wage local price wars in an effort to drive out weaker competitors. In other words, a complete system had been developed which if unchecked certainly "tended to suppress competition and promote monopoly." It was this tendency and these evils which found remedial expression in the Clayton Act of 1914. Thus the government had two weapons in its fight against the encroachments of monopoly: it could seek to break up a combination under the Sherman Act, or, failing in that, it could, acting pursuant to the Clayton Act, seek to stamp out practices considered inimical to the best interests of society, whether these practices were engaged in by big or small business. In either case, the end sought was a restoration of the competitive balance, in the hope that the forces in the market would again behave in accordance with the laws of classical economy, and prices resulting from the interaction of these forces would be those expected under conditions of more or less free competition.

The defects of the Clayton Act did not become immediately apparent. The outbreak of the World War and our subsequent entry, produced an atmosphere unfavorable to effective prosecution. And with the advent of the 20's we witnessed the phenomenal growth of chain stores, the appearance of direct retailing outlets of mail order houses and many other changes in the traditional marketing structure. In time it became evident that in part at least they prospered by engaging in the very practices the Clayton Act was supposedly designed to eradicate. The difficulty was due to the language employed in the act. "... nothing herein contained shall prevent discrimination in price between purchasers of commodities on account of differences in grade, quality, or quantity of the commodity sold, ..." Evasion of this clause became therefore an easy matter on the part of vendors by simply varying *quality* or preferably the *quantity* of an article. Thus quantity discounts *of any size* were permitted, since this would be a difference in price due to variations in quantity. Nor were those differences limited to differences in the cost of doing business. Any variation in quality or quantity could be made the basis for unlimited variations in price. Thus it is not to be wondered at that enforcement of the act bogged down, and that either the whole scheme of legislating business morality had to be abandoned or new and better weapons found to combat old and new evils.

As early as 1930, Congress authorized an investigation into chain store activities. This took almost six years to complete and formed the basis of recommendations for new legislation which eventually resulted in the passage of the Robinson-Patman Act. It was during those years also that the FTC investigated the contract existing between the Goodyear Tire and Rubber Company and Sears, Roebuck & Company, and issued a cease and desist order against the former. The case is still dragging its tortuous way through the courts, though on a mere legal technicality.

It must be apparent at once that the charge that the Robinson-Patman Act is a hasty and ill-advised piece of legislation is baseless. It represents an evolutionary development of thought in coping with a definite problem. Granted the premise that unrestricted laissez-faire creates undesirable restrictions of competition, an act such as the Robinson-Patman Act was almost sure to result. Its provisions are the outcome of realized shortcomings in enforcing the Clayton Act. It is based on recommendations of an exhaustive investigation of the chain stores, and its legislative history covered a period of more than a year. True its final passage was hurried and came at a time when it was least expected. But no act with such a history behind it can be considered as a hasty bit of legislation.

This brings us to the Robinson-Patman Act itself. Since its purpose as we have seen is the restoration of competitive equality, it proposes to accomplish this by specific provisions:

(1) Limitation of price discrimination between competing purchasers of goods of like grade and quality to those justified by differences in cost of manufacture, sale or delivery.
(2) Elimination of pseudo-brokerage, commissions, etc.
(3) Proportionately equal treatment of buyers in granting services, advertising allowances, etc.

The provisions of the Act are by this time too well known to need repetition here. Of the two books here reviewed that edited by Benjamin Werne deserves more serious attention. It is a symposium of articles most of which have previously appeared in print. Part I covers the historical background of the anti-trust laws, the economic factors, and legal problems. Professor Burns accounts for the first, Paul Cherington for the second, Gordon and Withrow for the third. The latter has examined some problems raised by the Act in connection with basing point systems. The conclusion seems a bit weak. The multiple basing point system is the latest development of the old Pittsburgh-Plus system, outlawed in 1923. It is futile to talk of "meeting competition in good faith" since the object "is artificially to extend the area in which a group of factories can profitably operate" (p. 82).

Part II devotes a number of papers to various mechanisms of distribution and the problems they face under the Robinson-Patman Act. Part III is concerned

with marketing problems, while Part IV is entitled Pioneer Cases and deals not only with the Kraft and Bird cases, but also discusses the legal aspects of "substantial lessening of competition," and the possibility of remoulding the anti-trust laws.

In a symposium of this sort, it seems to the present reviewer, greater stress should have been placed on the economic factors behind the Act, and certainly more emphasis on costs of production and distribution. Paul Cherington's article is directed chiefly against the incompetence and inefficiency of the one-man shop retailer. What he says is all too true. But to call the retailer a parasitic incompetent does not make the chain store any less predatory (p. 34).

One of the most vexing questions raised by Mr. Gordon is the problem of differential costing of additional orders. The Act expressly permits price differences due to differences in cost of manufacture, sale or delivery. However, the Congressional debates led by Representative Utterback are full of statements insisting on a concept of cost based on the entire volume of business; this would bar separate cost calculations with and without a particular contract.

There are many such unsettled questions under the Robinson-Patman Act. Computation of delivery costs, either in advance or ex post facto, quantity discounts, terms of sale, functional discounts, basing point systems, these are all vexing points and must await final adjudication by the Commission and the courts. Moreover, the things expressly or impliedly permitted under the Act have a way of producing unexpected results. For example, a manufacturer harassed by doubts as to the validity of his discount structure, decides to sell at one price only to all comers, as was done by Bird and Son. Assuming for the sake of the argument that the discount structure was discriminatory, how does the one price policy better the situation? For clearly, to sell at one price to everybody constitutes the worst kind of discrimination, and completely overlooks the cost of the various services rendered by different types of distributors.

It is not difficult in such a heterogeneous group of papers to find many points with which this reviewer is in thorough disagreement. This is particularly true of Wheeler Sammons's article on the legislative history of the Act. Space does not permit of a detailed discussion of these points. As is to be expected when so many persons write on one topic independently, there is some repetition of material. There is on the whole too little recognition of the evils which the Act was designed to curb and too much extolling of the virtues of bigness. The answer is not to be found by consulting marketing experts and accountants only. While the politician's solution may not seem all it should be, a solution must be found that clearly recognizes the existing cross-currents of competition, and the interplay of costs and their relation to price.

Among the best expositions in the book must be counted Professor McNair's discussion of the operating costs of chain stores and savings made possible by them to consumers. Jacob Javits's exposition of the economics of the paper industry is excellent. Of special interest to accountants as well as business executives is Mr. Aronson's paper on cost defences under the Robinson-Patman Act. Kraft was able to prove that their discounts were promotional in character and hence not discriminatory; also, that the variation in shelf prices of Kraft products was due, not to the discounts, but to the variety in type of stores and their location. Finally, an interesting point is raised with respect to manufacturing costs. Since the manufacture of cheese represents a process type industry, production is for the purpose of replenishing stock. "Under such circumstances manufacturing costs are clearly not applicable to particular transactions, but are inseparable from the business as a whole. Hence the cost defence must be directed to differences in the *methods* of sale and delivery, in the *quantities* sold and delivered, or *both*" (p. 227).

The discussion of the pioneer cases arising under the Act shows that the commission has taken on the whole a liberal attitude in deciding doubtful points. Since then of course the Biddle case has been decided in the Circuit Court in favor of the Commission. The latter case arose under section 2(c), the brokerage clause of the Act. The Federal Trade Commission must of necessity construe this clause strictly, as any liberalization of it would mean that from their point of view they would be no better off than they were under the old Clayton Act. Will the Supreme Court take the same view?

Of lesser scientific importance is Mr. Patman's book. It is on the whole a section by section analysis of the Robinson-Patman Act. Its most distinctive feature is the series of questions and answers appearing at the end of each chapter. These questions Mr. Patman informed me were part of his mail or else were to put him in the course of the many addresses he made on the subject of the Act. They are therefore evidence of the interest displayed by the business community in this matter. As a manual or guide the book therefore has its distinct merits, but it lacks depth of insight. It is also open to question on a number of points. Thus on p. 92, discussing section 2(e), the author states the question of competition does not enter. But on p. 94 in answer to a question based on the same section, the author says "if you are in competition with the chains . . . "

In connection with the defence of meeting competition, available to respondents, Mr. Patman takes an extreme position. He holds in effect that it is no defence at all, but "permits the accused to throw himself on the mercy of the court" (p. 40).

A valuable part of the book is the inclusion of the reports of the Committees on the Judiciary, Senate and House, the Conferees' Report, and excerpts from the Congressional Debates.

There are altogether 389 questions and answers. The authoritativeness of the answers is a matter of some doubt, even though the author of the Act himself answers them, and had them checked through the staff of the Federal Trade Commission. Since they acted in an unofficial capacity, there is no guaranty that their unofficial views will correspond to their official views when actual cases arise.

Theodore Lang

New York University

The Preparation of Reports—Scientific, Engineering, Administrative, Business. Revised Edition. Ray P. Baker and Almonte C. Howell. (New York: The Ronald Press Company, 1938, pp, xv, 578. $4.00.)

This revision of an earlier work is more than a college text-book; it is a reference work for the business and professional man. Though, as the subtitle suggests, the scope is broad, neither depth nor completeness of treatment have been sacrificed. There is information for scientists, engineers, executives, and business men.

The treatment of the periodic report is comprehensive and those persons entrusted with the preparation of annual reports will find it valuable and up-to-date. The material on statistics, which was scattered through several chapters in the first edition, has now been added to and gathered together into one chapter. The discussion of examination and recommendation reports has been extended. A complete and well-arranged index makes the material readily available.

The introductory chapter with its historical setting gives the modern report the respectability of an aristocratic literary lineage. The tradition of antiquity is, of course, interesting, though at times the term "report" is so glorified that it seems to be coextensive with "exposition." One is surprised, for example, at the implication that Wallace's memorandum to Darwin was a report.

As a text-book, the work has real merit. Its concreteness will be appreciated by the instructor in report writing. It is rich in illustrative material drawn from good reports, many of them written by important men. Many an instructor, who has been thrust into this work without an acquaintance with the literature, will value the bibliography. The position of the exercises immediately after the pertinent discussion, instead of at the end of the chapters, is convenient for use in the lecture-room.

Though the purpose of the book prevents much discussion of style, the authors have offered some good advice. There is, for example, the quotation from Bishop Sprat about "a close, naked, natural way of speaking"; and the authors' remark that the writer of reports "is under no obligation to be dull or monotonous," is needed by students who confuse accuracy and dullness. The emphasis upon completeness, clearness, and conciseness, though not new is sound. The value of technical language as an instrument of accuracy and conciseness is well presented; though some warning might have been issued against the use of that pseudo-technical language in which noun is piled upon noun to the exclusion of adjectives and prepositions.

Above all, this book may be recommended to immature writers because it is well written. It is not only clear, but it is free from the literary solecisms and involved structures which sometimes spoil text-books.

Frank Stiling
The University of Western Ontario
London, Canada

The Law of Business. James L. Dohr. (New York: The Ronald Press Company, 1937, pp. xviii, 659. $4.00.)

In the annual crop of business law books for laymen, Professor Dohr's recent work stands out for its departures from the conventional book in several respects: its scope and arrangement; its point of view; its use of statutes and references to collateral materials.

Its scope might easily have been limited to that of the third section, entitled "The Conduct of Business" and embracing the law of Organization, Marketing, Employment, Guaranty and Suretyship, Negotiable Instruments, Negotiable Evidences of Ownership, Liens, Conditional Sales and Mortgages, Insurance and Business Regulation. One's curiosity may be aroused as to what more a book on business law might contain. Part I is introductory, dealing with such matters as the study of the law, the purposes and methods of law, and, finally, "Legal Relations," a chapter reminiscent of Hohfeld's teachings that were current a decade or two ago. Part II, entitled "Basic Law," is a rather hopeless attempt to squeeze into 200 pages summaries of Constitutional Law, Criminal Law, Torts, Negligence and Fraud, Real Property, Personal Property, Contracts, Remedies, Evidence, and the Financing of Government (Taxation).

What we really have here is an attempt in one part of the book to follow a lawyer's classification of law and in another a functional classification of the same material from a business man's point of view. As a consequence there are always two possible places in the outline for any given theme. Some are repeated, some are arbitrarily put into the one scheme and excluded from the other, and some are quite surprisingly omitted altogether. The only alternative, which the author is too practical to accept, would be to deal with such subjects as Contracts when divorced from Marketing, Employment, Insurance, Credit, and other specific uses of Contract, in a vacuum.

While the scope of the book is thus unusually broad for such a work as this, its point of view is rather remarkably narrowed. It is that of accounting rather than of business in general. Most of the chapters lead to climaxes specifically allowed to the accountant and his work. Thus, the following chapters end with the themes indicated: Chapter 4, Government Business and Accounting; Chapter 6, Torts and Accounting; Chapter 7, Negligence and Fraud in Business Accounting; Chapter 8, Real Estate and Accounting; Chapter 9, Personal Property and Accounting; Chapter 12, Contracts and Accounting; Chapter 14, The Accountant and Evidence; Chapter 15, Business Accounting and Taxation; Chapter 22, Accounting and the Law of Marketing; Chapter 23, Accounting and the Law of Employment; Chapter 27, Negotiable Instruments and Accounting; Chapter 29, Accounting and Liens; Chapter 31, Accounting and Business Regulations.

This narrowing of the point of view—at times it might almost be called squinting—does not really hurt the book at all. On the contrary, it suggests that the frank assumption of the task of writing a book for none but the accountant might have simplified the task of the author and resulted in smoother reading. The law of a situation frequently conditions the accounting called for in it, and the limits of accounting possibilities, in return, react upon the law. In fact, in the work before us it is the accountant's interest in the subject that

brings to this book for the first time in the history of business law texts a comprehensive discussion of taxation, and particularly the Federal income tax. In general, a similar influence is seen throughout the book in the selection of details for emphasis.

In the use of statues this work makes a unique contribution. Not only does it recognize the importance of selected Federal acts and the uniform state acts on business subjects, and print them in preference to discussions of the common law which they codify or supersede, but an effort has been made in a few situations to put forward typical state acts dealing with the subject matter in which the book is most interested. Thus, in the matter of dividends and distribution, there are printed in full the statutes of Illinois, Delaware, New Jersey, and Ohio. On the requirement of keeping books of account, the statutes of Illinois, Michigan and Ohio appear. The difficulties that have excluded statutes from books of this kind heretofore may not apply with equal force to a book intended primarily for accountants who have, after all, a professional interest not only in the framing but in the practical application of those sections of the statute book that apply to their work. Whatever the difficulties may be, they are compelled to meet them. The danger inherent in learning statutes—that the legislature may repeal one's wisdom over night—also applies in far less degree than in the case of the ordinary business man, because within their particular field accountants today have not only the necessity but the practical means of keeping abreast of statutory development.

This phase of the accountant's life and work explains the final departure of Professor Dohr from the conventional books, namely, that he gives references to other literature and discusses the use of legal materials in a matter that takes for granted that the training of his students will be used not merely for the doubtful purposes of memorizing but as a means for continued study and research—a consummation devoutly to be wished.

Nathan Isaacs

Harvard University Graduate School of Business Administration

The Folklore of Capitalism. Thurman W. Arnold. (New Haven: Yale University Press., 1937, pp. vii, 400. $3.00.)

Mr. Arnold refers to *The Folklore of Capitalism* as those ideas about social organization which are not regarded as folklore but accepted as fundamental principles of law and economics. Thus, they are folklore to Mr. Arnold. There is much that might be said about this stimulating and provocative book and it might be said in different ways. It is an ironical critique of capitalism made more effective by its style. The lawyers and economists are the priests in the temple of capitalism; they are the formulators and custodians of dogma. It would not be inaccurate to say that it is a criticism of both the creed and the priesthood by one of the priests.

The fourteen chapters appear to form three separate sections. The first seven constitute a background and an approach in that the nature of the prevailing folklore is somewhat elaborated. The next five are perhaps the major contribution, since they are a discussion of the place of the corporation in modern economic life, while the last two develop in some degree the social philosophy of the author. If one were to attempt to classify the work with reference to economics, he would probably have to say that it belongs in that literature of Institutional Economics in the sense in which Peck[1] uses the term. Thus, we find the author saying " . . . that social creeds, law, economics, and so on ***have no meaning whatever*** apart from the organization to which they are attached."

Much of the emphasis of the first few chapters is expended on the significance of the disparity between the creed and the practice. "The political scientists are the high priests of our governmental mythology. The politician is still in the position of the Jewish money lender of the Middle Ages." Thus, it has come about that "The Great ideological battle of 1937 was whether Capitalism was worth preserving." The faith has been sorely tried during these years of depression and the faithful failed to realize " . . . that human organizations rise to power, not by following announced creeds, but by the development of loyalties and institutional habits."

Some of the priests are taken to task. Among them, Mr. Walter Lippman is accused of " . . . pure day-dreaming," even though he is " . . . one of the most learned economic pundits of the time," for pretending that the separate states are like physical or chemical laboratories, dealing with economic problems as a scientist deals with physical experiments (p. 93). Mr. Arnold thinks that great corporations do not bother much about state boundaries, so Mr. Lippman must be considered one of the priesthood chiefly concerned with symbolism. Greater realism will be found among "Sincere thinkers like Dewey and ably written and intelligent papers like the *New Republic*, the *Nation*, and *Common Sense* . . . " who would like to see a third party formed. Here one might find the dogma of a new faith of realism and another priesthood not handicapped with symbolism.

The economists and the lawyers are rated high among the priesthood of capitalism. But the latter have the best of it because they had a supreme court which finally decided what the law is, while the economists never could agree on this detail. Consequently the lawyers gained greater prestige and so had a larger part in the protection of the creed against unorthodoxy. The economists were merely relegated to mere preaching of the gospel. These " . . . *laissez faire* economists constantly advocated free trade, while the *laissez faire* businessmen insisted on letting protective tariffs alone.

It would seem that Mr. Arnold gained his impressions of economists from a literature that now has little more than historical significance. In general it might be said that the author is lacking in historical perspective and background both with reference to economics and political science. It is, of course, true that most lawyers

[1] Peck, H. W., *Economic Thought and its International Background.*

are still thinking in terms of the economics of Adam Smith and that obviously places them among the symbolists who think mostly in terms of the interests of finance capitalism. But, there is a vast literaure and a considerable following among economists who have advanced as far as neo-classicism at least. Some distinctions should be made among the priests in the temple.

Mr. Arnold has a chapter on "The Use of Language of Private Property to Describe an Industrial Army" which reminds one of the windmills set up by that modern Don Quixote, Mr. Stuart Chase, for the mere joy of journalistic tilting. "Men always idealize the habits and the structure they give to society. The idealizing is done by magic words." The author is annoyed with the students of government and economic theory because it is hard to convict them of sin, since the words in which they put their predictions " . . . are so vague and slippery." It is true that they have been somewhat difficult in this respect, but then they have no supreme court to define words and make them mean what they should. Doubtless the economists would have made greater progress, if they had been subsidized or if they had been found capable of contributing to corporate profits as effectively as the lawyers and the chemists, for example.

The best work in this volume begins with Chapter VIII, "The Personification of Corporation." Here Mr. Arnold very clearly says that "This book is concerned only with diagnosing the present difficulties which have come upon us now that the industrial feudalism is no longer protecting large groups . . . who demand security." Of course the feudalism is largely the product of the mythology so carefully developed by the priests that the " . . . great corporation is endowed with the rights and prerogatives of a free individual." The following chapters, "The Effect of the Antitrust Laws in Encouraging Large Combinations," "The Ritual of Corporate Reorganization," "The Benevolence of Taxation by Private Organization," and "The Malevolence of Taxation by the Government" deal with subjects with which the author is well informed and he is thus able to speak with some authority. These chapters will repay careful study now that Mr. Arnold has been added to the staff of the Department of Justice.

The chapters entitled, "The Social Philosophy of Tomorrow" and "Some Principles of Political Dynamics" conclude this entertaining and ironical critique of capitalism. Mr. Arnold is mostly concerned with the necessity of accepting the corporation as "government" and of becoming reconciled to the intervention of government in the realm of business. One who accepts these things may be a heretic, but he is a realist and so must choose between heresy and realism. If so, then there must be a new creed to which the realistic can be faithful. Actually Mr. Arnold is merely complaining because in times of rapid rate of change there develops a hiatus between creed and practice. In short he is annoyed by the inevitable.

E. A. KINCAID

University of Virginia

The Federal Reserve Bank of San Francisco. Parker B. Willis. (New York: Columbia University Press, 1937, pp. xiii, 277, $3.00.)

This study is the result of an effort on the part of the author to determine the influence of the San Francisco Reserve Bank on the banking structure of its area. The policies of the bank in member and nonmember bank relations, relative to credit control, in stimulating the economic development of the region, in aiding in the formation of capital and money markets, and in relations with other districts are examined. In addition "An attempt has been made to determine the degree of independence of the San Francisco Reserve Bank in formulating its policies." This task has resulted in nine chapters three appendices, twenty-nine tables and sixteen charts.

In the first chapter it is brought out that until about 1890 all of the states on the Pacific coast were dependent upon their own capital resources; the 1890's found many cities, mortgage banks and other long-term investment concerns heavily indebted to eastern capitalists or those abroad; the panic of 1907 found the Pacific Coast banks rather heavily involved with eastern centers but chiefly on long-term account since it was able to take care of its own short-term needs for the most part. In the period following the establishment of the Federal Reserve System credit became more fluid and long-term capital more available. Loans shifted towards shorter maturities and there was a tendency towards centralization of both structure and connections.

Chapter II, "Banking in California" relies chiefly upon secondary sources. It is nevertheless an interesting account of early banking in California and a rather sketchy one of banking in the other states. It is remarked that "It was not until the World War and the impounding of gold that the coast communities abandoned coin and that paper currency became general as a circulating medium." Moreover, gold is still exchanged for credit outside the area (p. 50). "The Beginnings of Financial Organization" is the subject of Chapter III. Here the effect of geographical location upon interbank balances, correspondent relations, seasonal fluctuations, cash movements and the market for foreign exchange are considered. It is brought out that "The overdraft, prior to the panic of 1893, was a current method of facilitating the movement and shipments of goods" (p. 68). Here also one finds an account of the beginnings of branch banking. By 1910 most of the commercial banking activity of the coast was directed by national banks. But savings banks must also be considered since "They have consistently been the predominant group of banks in all of the Pacific states . . . " (p. 77).

"The Establishment of The Federal Reserve Bank of San Francisco" is the subject of Chapter IV and it appears that sentiment among bankers was against the new system on the West Coast as well as elsewhere. It also appears that the Organization Committee favored the establishment of a Reserve Bank in the Pacific Northwest, but found the capital and surplus of state banks that had applied for membership insufficient to make up for the deficient capital and surplus of

national banks in that region. With this decision there was much dissatisfaction. This problem was partially solved when the first branch was established at Spokane in 1917. The author errs somewhat when he refers to the Spokane branch as being "... situated in an agricultural area ...". While this is true it fails to take into consideration the vast mineral, lumbering and commercial activities of the region (p. 111).

Chapter V takes up "Operations of the Twelfth Bank" and contains an interesting account of the origin and development of rate policy. It is remarked that the rediscount rate does not have any noticeable effect on the total volume of borrowing by banks outside of metropolitan centers, since "... there has been no tendency for the Federal Reserve rates to be passed on to customers" (p. 128). The absence of large credit-consuming agencies like the New York securities market contributes to the inelasticity of the demand for funds and "Regardless of whether the market is higher or lower, the banks are reluctant to change rates; they prefer to keep rates high and use their surplus funds in the open market."

In Chapter VI, "Bankers' Acceptances and Bankers' Balances in the Twelfth District," it is brought out that San Francisco banks have not developed a securities market which absorbs all idle funds, but, instead of passing all of their idle funds on to New York local banks have, over a period of years, gradually expanded their business on the basis of these outside funds. "Sums 'due to' San Francisco banks have increased approximately 4 millions of dollars every year over the period 1890–1930; at a rate of more than 5 millions of dollars per year during the period 1914–1930. Amounts 'due from' outside banks have increased less rapidly." It is also said that, since 1920 the local banks have employed 40 cents of every dollar in their local market. The remaining 60 cents have been sent to New York.

"Twelfth District Relations with the Reserve System," Chapter VII, explains that "For the past few years these (Treasury) operations have more than offset the small loss to the district from commercial operations, thereby creating a favorable balance of trade." The balance of payments to other districts has much to do with the surplus of funds available for the banking community in the district. Another interesting problem arose out of the shift of some national banks to the status of state banks because of the branch banking development. The McFadden Act somewhat improved the competitive position of national banks. Since 1933 the spread of branch banking has been more largely due to economic needs of the community than was the case before.

Chapter VIII considers "Twelfth District Relations with the World—Foreign Trade." Here it is shown that "... the foreign functions of central banking have fallen largely into the hands of the New York Reserve Bank ..." for very definite stated reasons, and the author thinks the New York Reserve Bank has from the outset attempted to control the policies of the other Reserve Banks. The final chapter, "The Twelfth District in Review" concludes that (a) the Twelfth Bank has not been able to develop a clear-cut, independent credit policy within the District; (b) the problem of developing a district credit policy, more nearly independent of other areas has become more pressing; (c) the outlook for the future justifies the continuance of the Federal Reserve Bank of San Francisco as a separate institution. Indeed, "A careful analysis of its twenty-two years of development makes it evident that a branch of a large central bank could have performed almost as effectively as the present bank has done; (d) independent regional banking has not been achieved in the United States, but economic and structural conditions still justify the ideas of the original framers of the Federal Reserve Act. Public and banking opinion must insist on making them effective."

Dr. Willis has found evidence of the geographic distinctiveness of the Pacific states and in this he has found a basis for economic and financial independence to a greater degree than actually exists. More prolonged study and observation would have strengthened these impressions and made them more definite. Thus it might have become possible to measure more nearly the forces making for cohesion against those making for independence as well as the extent to which both should be fostered. The question is a large one and could not be studied under more favorable conditions in any other district since the Pacific States are in a very definite sense an economic and geographic region. It would seem, from what the author has said and from what may be inferred that the Twelfth District finds its national financial capital in New York City and one might conclude that he does not look with great favor upon this fact. The study will prove useful because of its possible influence upon other similar studies to come and because of the sympathetic attitude of the author towards the District and its problems. It is a timely study with much of significance actually brought out or left to the mediation of a reflective reader.

E. A. Kincaid

University of Virginia

UNIVERSITY NOTES

University of Buffalo

J. Ralph Toepfer, C.P.A., Lecturer in Accounting, has been appointed Chief, Audit Division, City of Buffalo.

University of Colorado

Students of the School of Business held a joint meeting with the Denver chapter of N.A.C.A. at Boulder on the evening of April 27.

Louisiana State University

Beginning with the Fall semester the first-year accounting course will be limited to students with at least sophomore standing.

Continuing the study of examination grades by students having high school bookkeeping, the following result is reported:

	Students Having High School Bookkeeping		
	None	*1 year*	*2 years*
Per cent of total rollment	77	16	7
Average grade—in per cent	78	16	88.5

Miami University

C. R. Niswonger, Assistant Professor of Accounting, will be on leave of absence during 1938–39 in order to do graduate study at Ohio State University where he has been granted a fellowship in accounting.

University of Montana

Stenography has been accepted for credit toward graduation of students in Business Administration.

Dean Line and a class in retail stores made a trip to Spokane and Seattle to study operation and organization of different types of retail stores.

Hampton K. Snell has resigned and will join the staff of the University of Southern California. Professor H. Turney-High will return to Montana after a year at Tulane.

Mundelein College (*Chicago*)

L. Thomas Flatley, who received the Ph.D. degree from Northwestern in 1937, has resigned as Associate Professor of Finance in the College of Commerce of the University of Notre Dame and is now Professor of Accounting here.

Northwestern University

A new course entitled "Current Trends in Accounting for Corporate Net Worth" will be offered this summer by Harry D. Kerrigan. F. Gardner, consulting industrial accountant, is giving a course in the evening division on "Work of the Comptroller."

University of Oregon

Victor P. Morris has succeeded H. V. Hoyt as Dean of the School of Business Administration.

University of Pennsylvania

James R. Keiser, member of the staff since 1920, died February 8, 1938. C. Whitford McDowell, C.P.A., and Harold E. Scott, C.P.A., have been added to the staff of the evening division. Harry Ness, C.P.A., is teaching in the Harrisburg extension division. Mr. Ness is Vice President of the Pennsylvania Institute of Certified Public Accountants.

A book on Textile Costing by Jeremiah Lockwood and Arthur D. Maxwell has just been published by the Textile Foundation. Professor A. H. Williams of the Wharton School is editor of the series.

Princeton University

Professor Stanley E. Howard, Chairman of the Department of Economics and Social Institutions, will be on sabbatical leave during the first term of 1938–39. Dr. Lester V. Plum will have charge of the course in Principles of Accounting during Professor Howard's absence.

Stanford University

Barrett F. McFadon, Lecturer in Accounting in the Graduate School of Business, will become Associate Professor of Accounting from September 1, 1938. Dean J. Hugh Jackson was recently elected a director of Dollar Steamship Lines, Inc., Ltd., under a plan of reorganization developed by the U. S. Maritime Commission.

Syracuse University

A plan is being developed whereby the Accounting Department will work in closer harmony with the Comptrollers' Institute. Courses will be arranged aiming toward proficiency in the work of the comptroller.

Professor George E. Bennett, head of the department of accounting, has been elected a member of the Grand Council of Beta Alpha Psi, National Accounting Fraternity.

n Ac-
be of-
n. F.
nt, is
Work

oyt as
ation.

since
itford
C.P.A.,
ing di-
in the
is Vice
Certi-

Lock-
n pub-
r A. H.
of the

man of
l Insti-
ing the
am will
of Ac-
nce.

ounting
become
n Sep-
was re-
eamship
nization
mission.

the Ac-
ser har-
Courses
y in the

of the
lected a
pha Psi,